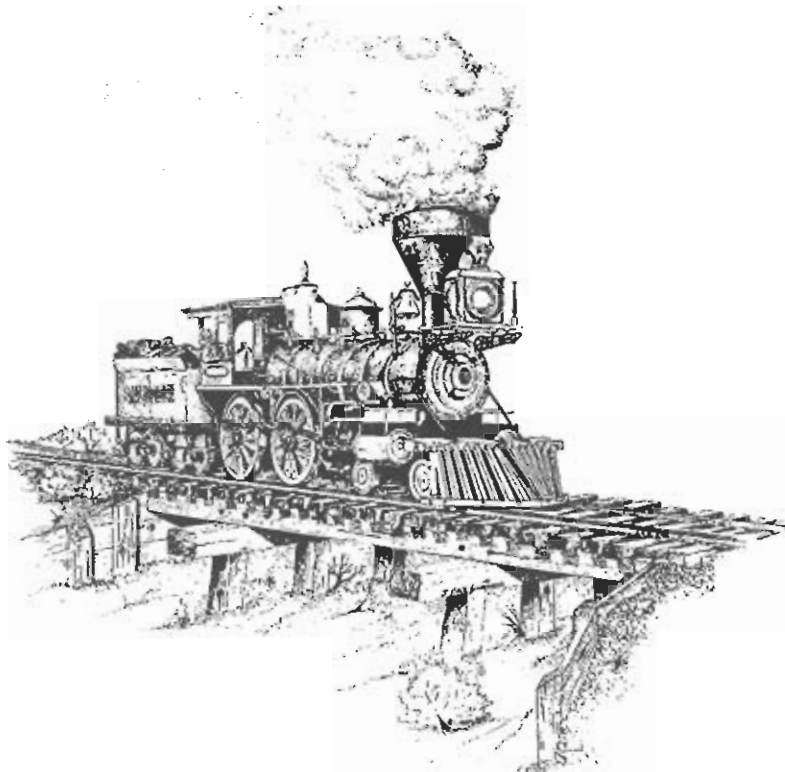


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**Rails East to Promontory
The Utah Stations**

Anan S. Raymond

Richard E. Fike



CULTURAL RESOURCE SERIES

No. 8

Special Edition Reprint
1994



Special Edition Reprint
1994

The original Bureau of Land Management publication on the route of this historic railroad between Lucin and Promontory Point in Utah, *Rails East to Promontory, the Utah Stations*, first appeared in 1981 as Number 8 in the Utah Cultural Resource Series. High public demand for the volume resulted in its becoming out-of-print.

The year 1994 marked the 125th anniversary of the completion of the first transcontinental railroad on May 10, 1869. Celebration of the placement of the famous Golden Spike was widely publicized and attended by thousands. The year 1994 also marked the advent of the theme "Trails West," in the Bureau of Land Management's Adventures in the Past program. This theme explored historic transportation routes and the relationship of these routes to westward expansion.

The work by the authors, Raymond and Fike, has stood the test of time. Please note that the volume has been reprinted as it appeared in 1981 with some modifications. A few minor notes offered as errata for this reprint, follow:

- * The map on page 26 has two errors. The site of Metataurus was spelled incorrectly, and the locations of Metataurus and Centre were apparently transposed.
- * The site of Ombey, as noted on page 27 (second paragraph) is not synonymous with Gravel Pit. Ombey and Gravel Pit are separate locations, as correctly described on page 62 of the text.
- * The site of Lucin, described on page 34, has changed. Today, only a few trees and a pond remain; the houses were removed in 1990.
- * The siding described on page 57 (bottom of first paragraph) takes its name from Red Dome Mountain, two miles to the north.
- * The location of Seco on page 79 should be changed to read:
T. 12 N., R. 10 W., Sec. 26, NE 1/4, SLM.
- * The location of Ten-Mile on page 82 should be changed to read:
T. 12 N., R. 9 W., Sec. 33, SW 1/4, SLM.
- * The location of West Lake on page 90 should be changed to read:
T. 11 N., R. 8 W., Sec. 11, SW 1/4, SLM.

Also, this edition of *Rails East to Promontory, the Utah Stations* commemorates the dedication of 90 miles of the first transcontinental railroad as a Bureau of Land Management Back Country Byway. We encourage visitors to enjoy the railroad grade, a remnant of an important era in American history. Come prepared for a rugged ride through a remote area.

The old Central Pacific Railroad grade, its section camps, and the remains of its railroad communities have suffered badly from illegal digging and surface artifact collecting since the rails were abandoned. These cultural remains are for everyone to enjoy, yet they are disappearing bit by bit. Please leave them for future generations.

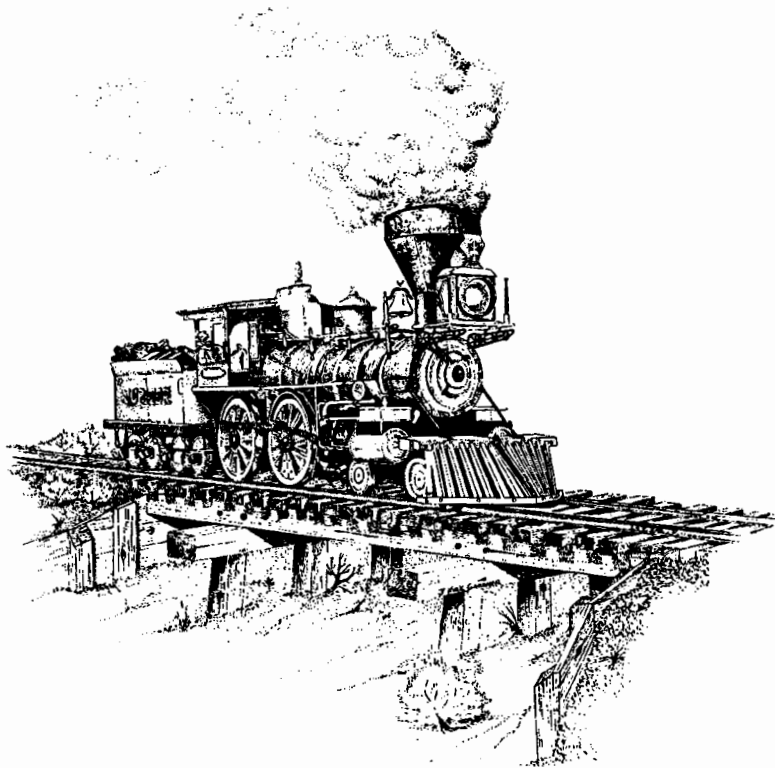
Vandalism, illegal digging, and surface artifact collecting should be reported to the BLM Salt Lake District in Salt Lake City, to the Box Elder County Sheriff's Department in Brigham City, Utah or call the BLM vandalism hot line, 1-800-722-3998.

With an appeal for your help in preserving the remains of the nation's first transcontinental railroad, I am pleased to reprint this very popular volume in BLM-Utah's series of cultural resource monographs.

LEON E. BERGGREN
Bear River Resource Area Manager
Salt Lake District
Bureau of Land Management

Phone numbers:
BLM Salt Lake District, (801) 977-4300
Box Elder County Sheriff, (801) 734-9441
Vandalism Hot Line, 1-800-722-3998

RAILS EAST TO PROMONTORY THE UTAH STATIONS



Anan S. Raymond

Richard E. Fike

1981

Utah State Office
Bureau of Land Management

Special Back Country Byway Edition
1994

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ABSTRACT

This monograph presents a history and description of a segment of the first transcontinental railroad completed on May 10, 1869, and owned, in Utah, by the Central Pacific Railroad Company. A portion of the original grade, now abandoned, follows a route eastward from Lucin, Utah, around the northern end of the Great Salt Lake over Promontory Summit to Ogden. The completion of the Lucin Cutoff between Lucin and Ogden, in Utah, diverted rail traffic from the original route. This original route then became known as the Promontory Branch and received only sporadic use after 1904. Soon the railroad facilities were removed and the dependent towns abandoned. The rails of the Promontory Branch were finally taken up in 1942.

This study concentrates on the continuous segment of the abandoned grade, traversing considerable portions of public land, between Lucin and Promontory Summit. Recognizing its role in the management and protection of America's cultural heritage, the Bureau of Land Management initiated the study that has culminated in this monograph.

Anan S. Raymond

Richard E. Fike

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Helpful in our research were: Golden Spike National Historic Site and the libraries of the University of Utah, Utah State Historical Society, and the Church of Jesus Christ of Latter-Day Saints.

INTRODUCTION

In Utah, a substantial percentage of the first transcontinental railroad grade is abandoned. A portion of this grade, constructed and maintained by Central Pacific Railroad Company, is the subject of this monograph (Fig. 1).

The original grade follows a route eastward from Lucin, Utah, near the Nevada border, around the northern end of the Great Salt Lake over Promontory Summit to Ogden. This grade was eventually abandoned in favor of a shorter route via trestle between Lucin and Ogden across the Great Salt Lake. The original grade became known as the Promontory Branch and saw only sporadic use after completion of the "cut off" in 1904. Railroad facilities and dependent towns were soon abandoned. The rails of the Promontory Branch were removed in 1942.

This monograph provides a documentary and historical perspective to the abandoned grade, its railroad stations, and associated features stretching from Lucin, eastward to the Golden Spike National Historic Site at Promontory Summit. First a historical sketch provides information on the building, maintenance, and abandonment of the route now known as the Promontory Branch. Afterwards we furnish a history and description of the railroad structures and settlements along the abandoned route. Finally, a brief discussion describes the features and artifacts encountered along the route today.

The study integrates previously published and unpublished documents with extensive field work along a 90-mile stretch of the original transcontinental railroad grade in northwestern Utah. Nineteenth century railroad maps, including engineering profiles, station plans, right-of-way and track plats, and miscellaneous inventories provide valuable guides to locating and identifying 28 railroad stations, associated facilities, and settlements. Newspaper accounts, oral histories, historical documentaries, and photographs provide perspective. The study primarily concentrates on the surface remains and history of building and operating the railroad in northwestern Utah between 1869 and 1904. It is chiefly intended for land managers, historians, and archaeologists, requiring a basic study from which subsequent interpretational programs, archival research, and field work may be pursued.

The Transcontinental Railroad 1869

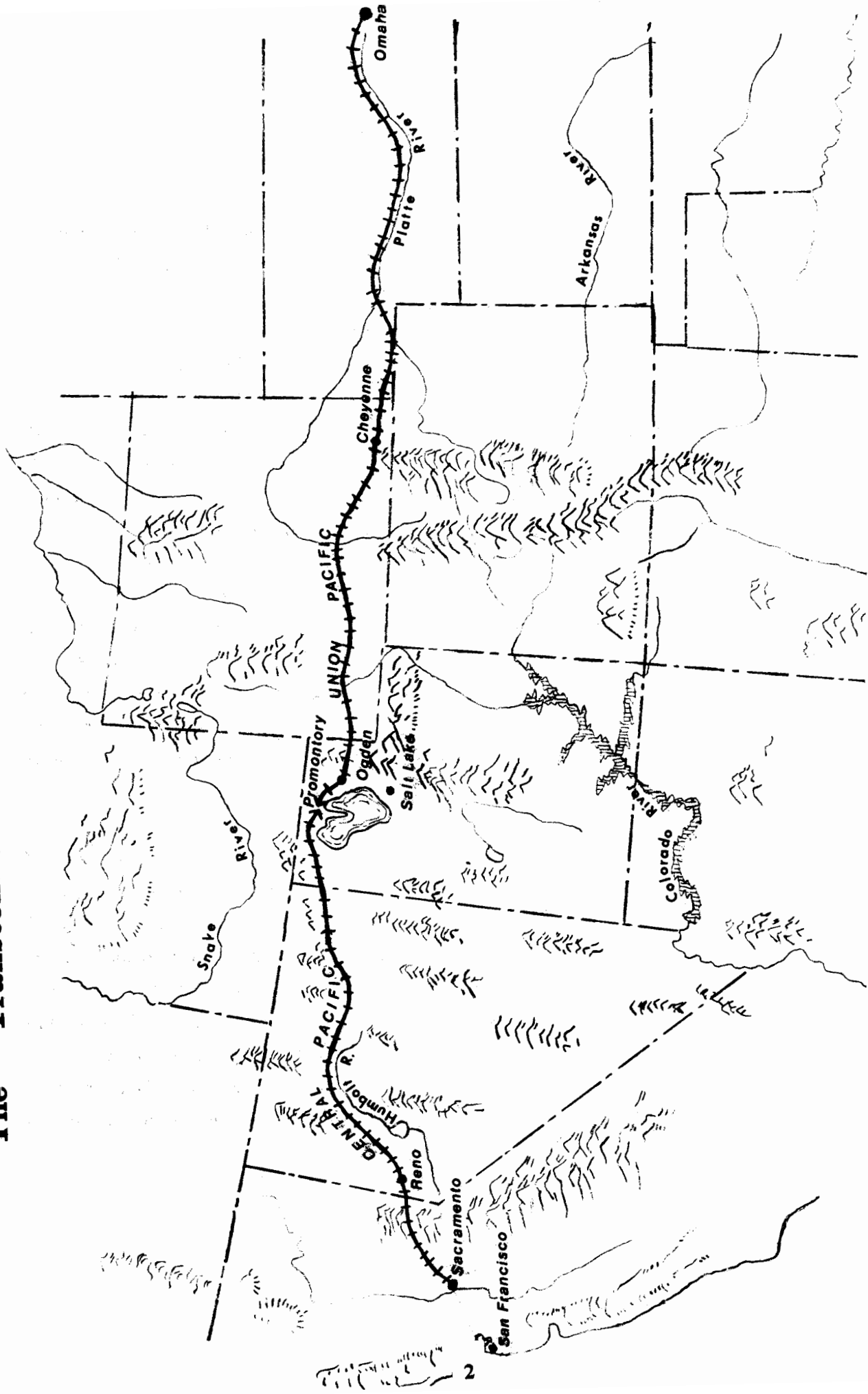


Figure 1: The First Transcontinental Railroad in 1869 (rendered from Utley 1960)

HISTORICAL SKETCH

A concept to link the nation by rail became a reality on May 10, 1869 and America's frontier was nearly history (Fig. 2). Construction of the first transcontinental railroad and the meeting of the Union and Central Pacific Railroads at Promontory Summit not only contributed to the development of the west but, in fact, pulled the west coast into the continental mainstream. The "Iron Horse" opened the American West, traversed imposing mountain ranges, and made it possible to ship and travel the width of the country in days instead of weeks or months. A stage coach from Omaha to Sacramento required continuous travel for more than 20 days. Now with the railroad, the same passage was possible in less than a week.

The building of a transcontinental railroad to link the potentially rich and opportunistic western lands to a prospering east where manufactured commodities were readily available was not totally an eastern concept. In 1852, two years after becoming a State, the California legislature resolved:

" . . . the interest of this State, as well as those of the whole Union, require the immediate action of the Government of the United States for the construction of a national thoroughfare connecting the navigable waters of the Atlantic and Pacific Oceans for the purpose of national safety, in the event of war, and to promote the highest commercial interests of the Republic, and granting the right-of-way through the states of the United States for the purpose of constructing the road." (State of California in Kraus 1969a:7)

A potential route was selected and surveyed in 1853 and 1854 by the U.S. Army Corps of Engineers. The Corps, led first by Captain J. Gunnison and replaced by Lieutenant E.G. Beckwith, surveyed through Utah in May 1854. The survey party suggested a route paralleling the Hastings road, south of the Great Salt Lake, through the Salt Lake Desert and over a low pass at the south end of the Pilot Range (Fig. 3). Unfortunately, Beckwith's survey concentrated primarily on flora, fauna, and native Americans rather than the practical aspects of building a railroad (Beckwith 1854:18-30).

In 1857, Californian, Theodore Dehone Judah, presented the shortcomings of the survey to Congress. Unsuccessful in acquiring support for another survey, Judah returned home. His perseverance paid off and within two years he had inspired the California legislature to organize the Pacific Railroad Convention. Judah, the chief spokesman and engineer, called for detailed surveys of potential railroad routes. Finally by 1861, the initiative of the Convention resulted in: (1) stock shares being sold in a private enterprise, the Central Pacific Railroad Company of California, and (2) a formal proposal being sent to Congress to enlist financial aid for the rail line. Judah approached Congress once again. With the country engaged in a civil

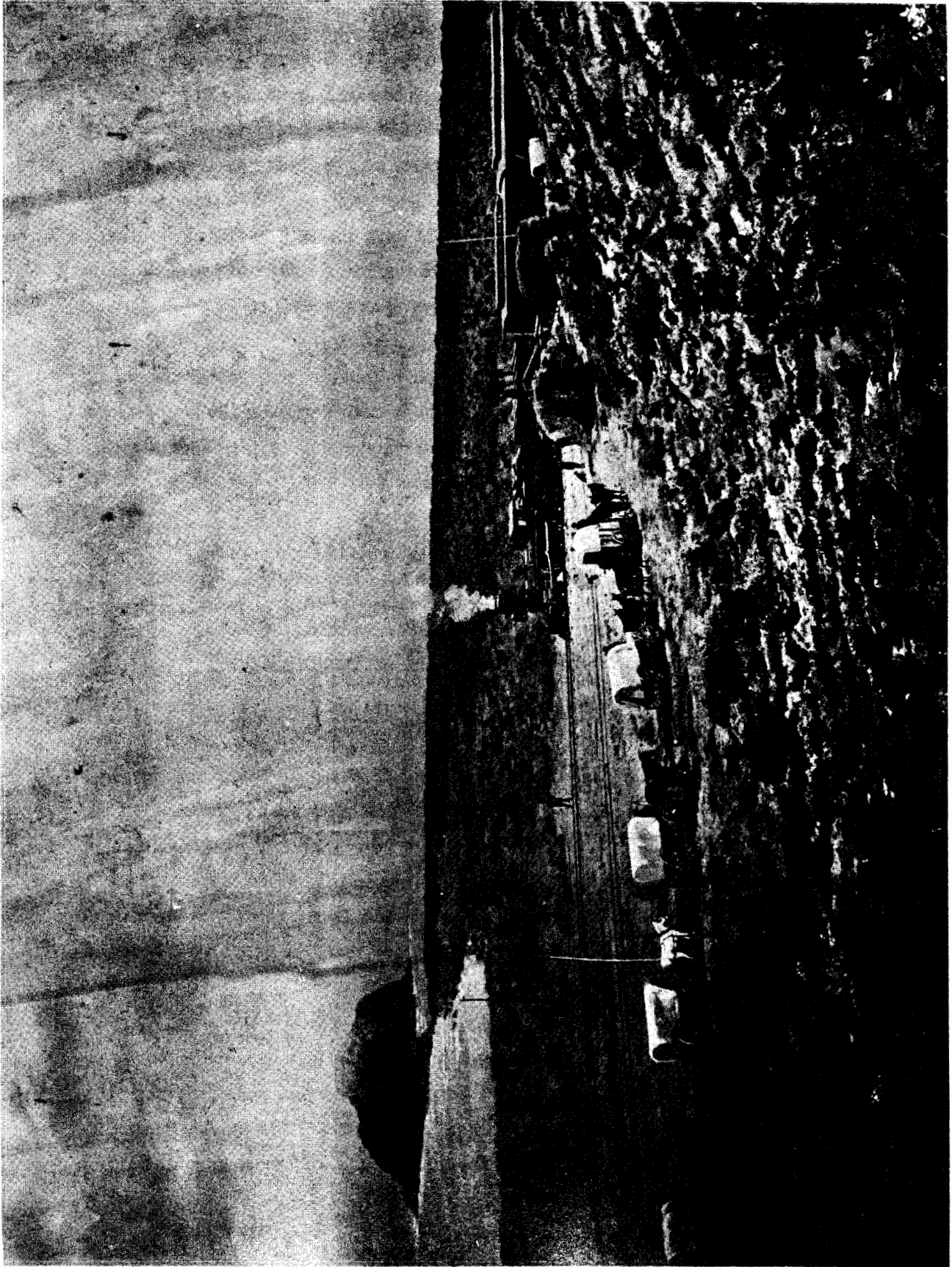


Figure 2: One of the last emigrant wagon trains heading west meets one of the first locomotives heading east at Monument Point, Utah, May 8, 1869

war, Judah gained Congressional support stating that his railroad would "Unite the Nation". The Pacific Railroad Act was created, endorsed by the 37th Congress, and signed into law by President Lincoln on July 1, 1862 (Kraus 1969a:13-45). No single action changed the complexion of the vast trans-Mississippi west in a shorter period of time than the passage of this Act.

The Act called for the creation of the Union Pacific Railroad Company for construction of a railroad and telegraph westward from a point on the Missouri River near Omaha, Nebraska. (Note: construction actually began at the west bank of the River in December 1863. A bridge was installed to Council Bluffs, Iowa in 1872 [Barry Combs, Union Pacific Railroad Company, personal communication]). Likewise, the Central Pacific Railroad Company was to construct a railroad and telegraph eastward from the Pacific Coast at or near San Francisco or the navigable waters of the Sacramento River (Kraus 1969a:45, 37th Congress 1862:489).¹ Other provisions allowed for a 200-foot right-of-way on either side of the track including ground as needed for construction of machine shops, stations, camps, and other essential facilities. It also granted the privilege to remove earth, stone, and timber materials necessary in construction. Three amendments, in following years, provided additional grants and aid (Kraus 1969a: 45).

Dependent upon all manufactured material coming from the east, the Central Pacific waited. Work trains, tons of iron spikes, rails, and tools were required and had to be shipped by boat, around South America to San Francisco, then by steamer up the Sacramento River. Depending upon the terrain and construction difficulties, the Central Pacific, and Union Pacific, received loans of \$16,000 to \$48,000 for every mile of track laid. Additionally, to obtain revenue, both were allocated every alternate section of public land adjacent to the rail line (mineral lands exempt) (Kraus 1969a:45). This acreage, formed a basis of credit with which to secure financing.²

Ceremonies, appropriate to the occasion, launched construction in Sacramento, January 8, 1863. It required five years of arduous manual labor, assisted only by hand tools and blasting powder to carve the route and lay rails through the Sierra Nevada. It was during this period that the principal ownership of the Central Pacific was consolidated by "The Big Four": Leland Stanford, company president and Governor of California, Collis P. Huntington, financial wizard and Central Pacific lobbyist in Washington, Mark Hopkins, Sacramento merchant and company treasurer, and Charles Crocker, chief contractor of construction.

1. The Union and Central Pacific Railroads received the first authority to build under the New Act. The Northern Pacific was chartered in 1864; The Atlantic and Pacific in 1866, and the Texas Pacific in 1871 (Department of the Interior, BLM 1962).

2. Central Pacific, 7,481,280 acres, Union Pacific 18,979,659 acres (Department of the Interior , BLM 1962).

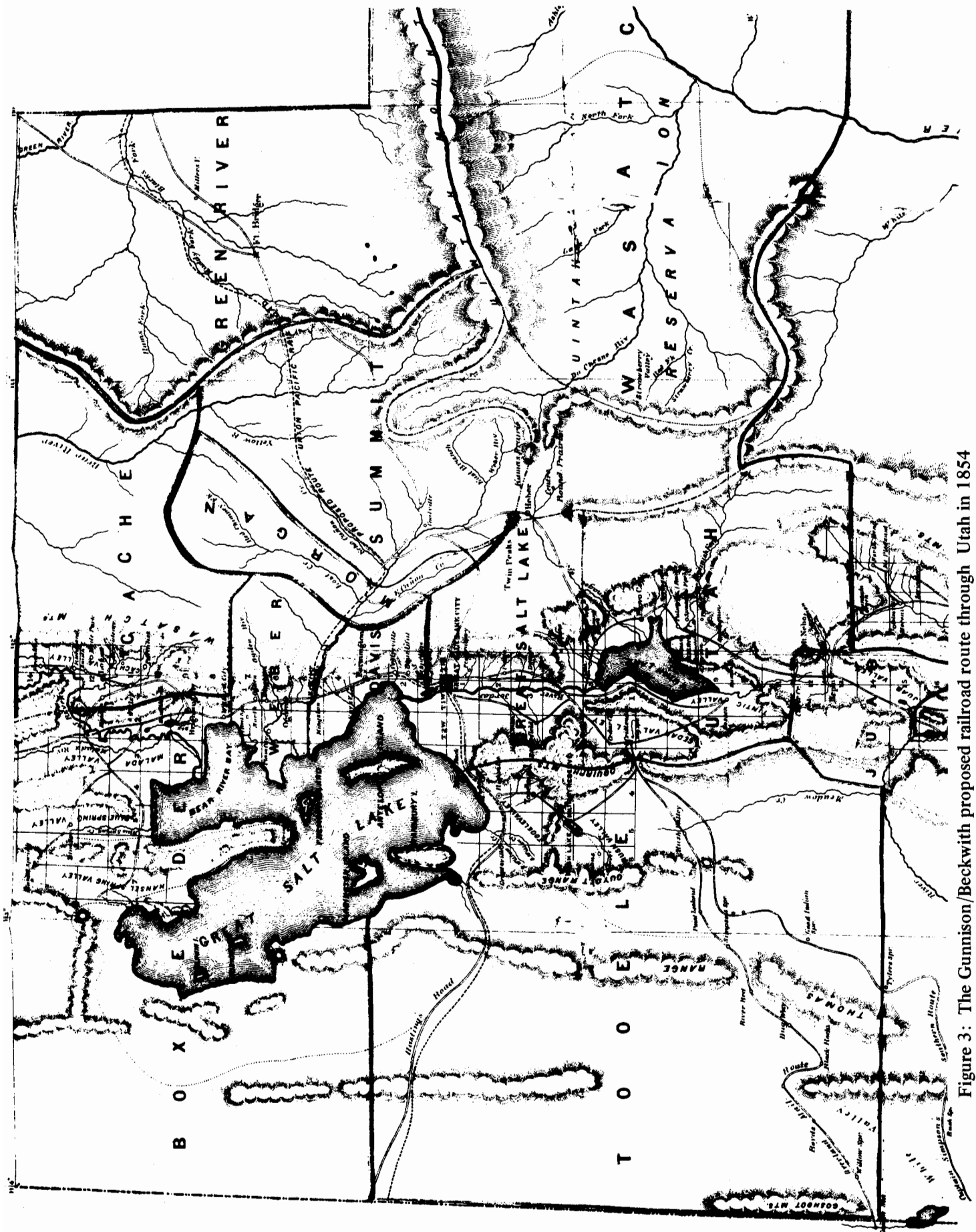


Figure 3: The Gunnison/Beckwith proposed railroad route through Utah in 1854

The first train reached Reno on June 11, 1868. With the deep snow and precipitous mountains behind, the construction pace picked up and construction crews moved swiftly across the Nevada Desert (Fig. 4).



Figure 4: A work train in the Nevada Desert
(Southern Pacific, Alfred A. Hart Photograph)

However, in the Great Basin there were other problems. Coal deposits were unknown so timber was utilized for fuel. Often only sagebrush powered the locomotives (Griswold 1962:298). Timber for ties was also a problem. Redwood trees, hewn in California, were transported and laid into central Utah. After leaving the Humboldt River in central Nevada, surface water for the locomotives and construction crews was virtually nonexistent. Drilled wells were often found dry and when water was found, miles of redwood aqueduct transported the water to holding tanks along the track. Water trains were then filled and driven to the railhead (Fig.5, Kraus 1969a:203).

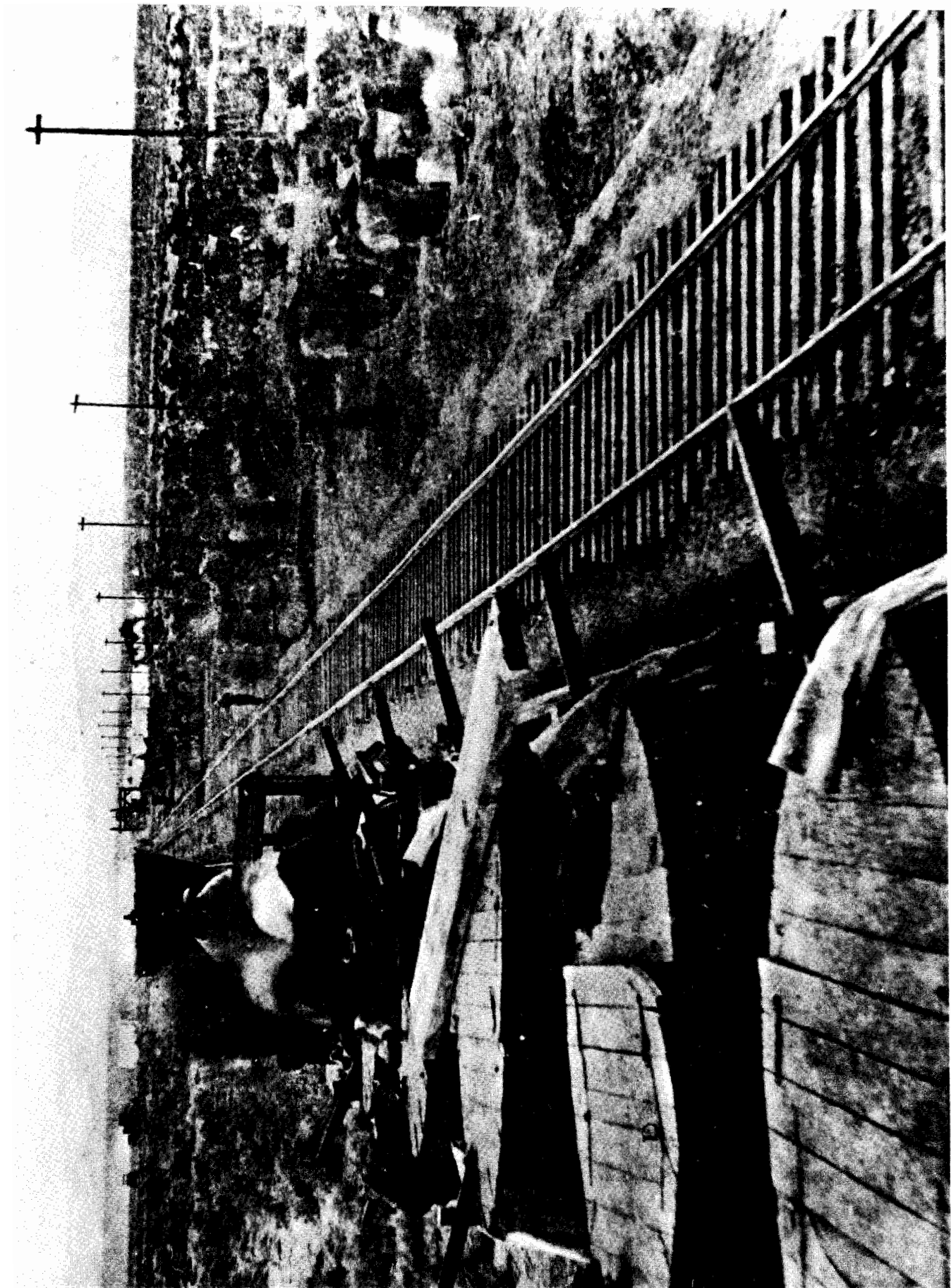


Figure 5: A water train on a siding during construction of the railroad. Note the Chinese laborers to the side of the track (Southern Pacific, Alfred A. Hart Photograph).

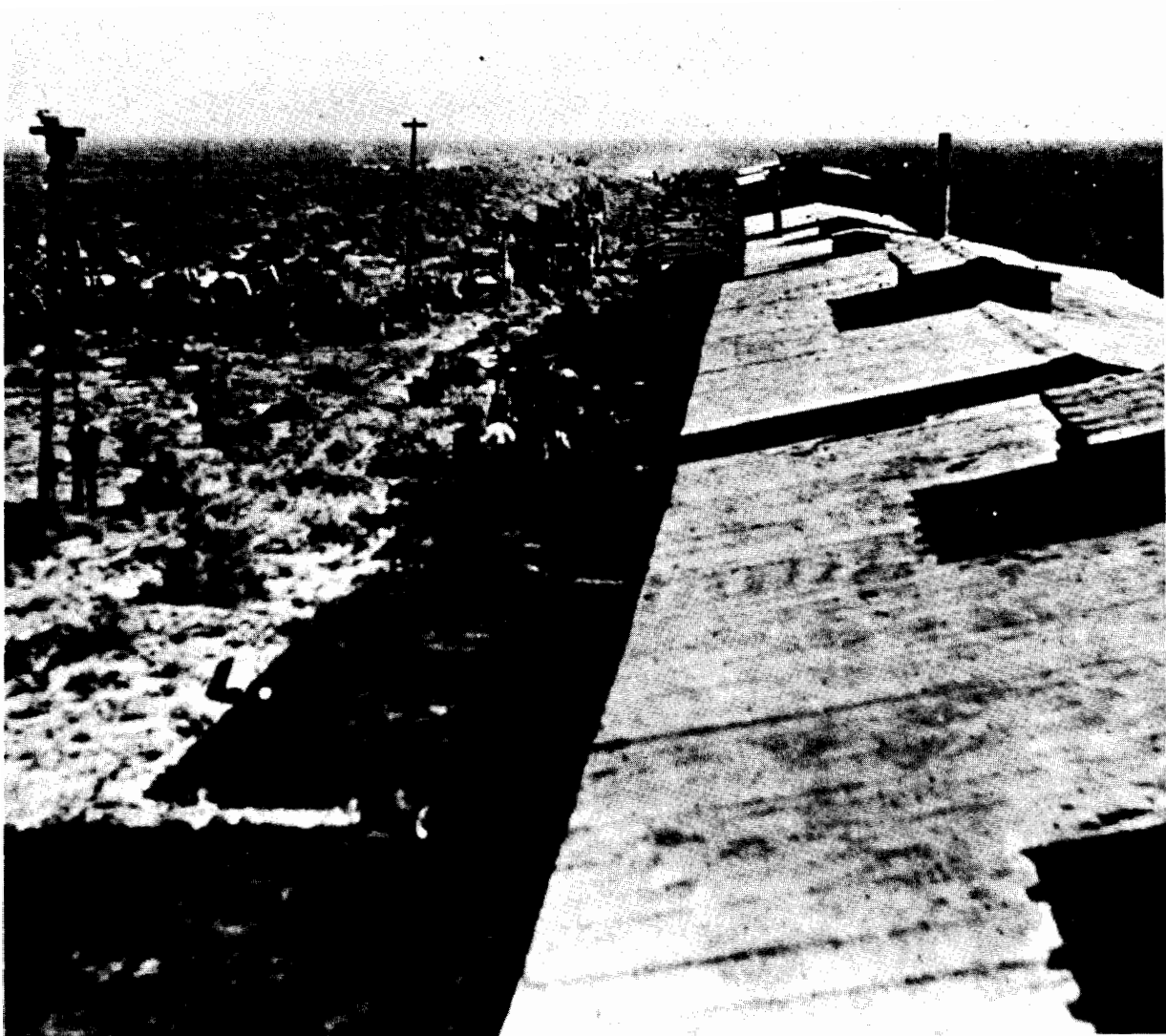


Figure 6: Telegraph Installation Accompanied Track-laying
in the Great Basin Desert
(Southern Pacific, Alfred A. Hart Photograph)

At track's end, horse-drawn wagons were stationed to provide water, food, and materials to more than 10,000 workers moving east across the desert (Figs. 6, 7). A vast majority of the workers were Chinese (Figs. 8, 9), and their contribution to the railroad construction is immeasurable. Indians, indigenous to the area, also worked alongside the Chinese (George Kraus, Southern Pacific Railroad Company, personal communication).

Known as "Crocker's Pets," the Chinese each received wages of \$30 to \$35 a month and were divided into groups of 30 men. Each group selected a leader who received all wages and bought group provisions. The Chinese workers are credited for saving \$20 a month. Every night before



Figure 7: Railroad construction camp (Southern Pacific, Alfred A. Hart Photograph).

supper, the Chinese workmen enjoyed hot baths in used powder kegs. Warm tea was available at the work site (Kraus 1969b:41).

"Systematic workers these Chinese - competent and wonderfully effective because (they are) tireless and unremitting in their industry . . . their workday is from sunrise to sunset, six days a week. They spend Sunday washing and mending, gambling, and smoking." (Alta Californian in Kraus 1969a:217).



Figure 8: Chinese work gangs, horse-drawn carts, and hand tools accomplished much of the grading work (Southern Pacific, Alfred A. Hart Photograph).

"They quickly picked up the necessary smattering of pidgin English. Otherwise they remained a segment of old Canton set down in Nevada, and remarkably unaffected by their change.

Their blue cotton smocks and trousers and their broad basket hats were ideal for the climate. When the felt-soled slippers of the new arrivals wore out, they purchased American boots at the company commissary, the price checked off against their wages due. The fit seems seldom to have been very good, for it remained a continuing joke among the superior whites that a Coolie always insisted on his full money's worth in the form of the biggest boots he could get." (McCague, 1964:104-105).



Figure 9: A lithograph of Chinese railroad workers from Harper's Magazine 1869
(Golden Spike National Historic Site)

Survey crews from both companies advanced (Figs. 10, 11) far ahead of railroad construction. By the spring of 1868, Central Pacific surveyors staked a line east across Nevada and Utah into Wyoming. Union Pacific surveyed a line as far west as the California border (Kraus 1969a:126).

Grade construction followed the survey crews in advance of the track laying. Rivalry flared as both the Union Pacific and Central Pacific graders often worked side by side. This resulted in parallel grade construction between Monument Point and Ogden, Utah and possibly into southwestern Wyoming. Officials of both railroad companies were optimistic that their line would receive the final right-of-way and the contracts and benefits included (Kraus 1969a: 228-229). Today parallel railroad grades are obvious and can be seen between Corrine, Utah and Monument Point at the north end of the Great Salt Lake (Fig. 12).

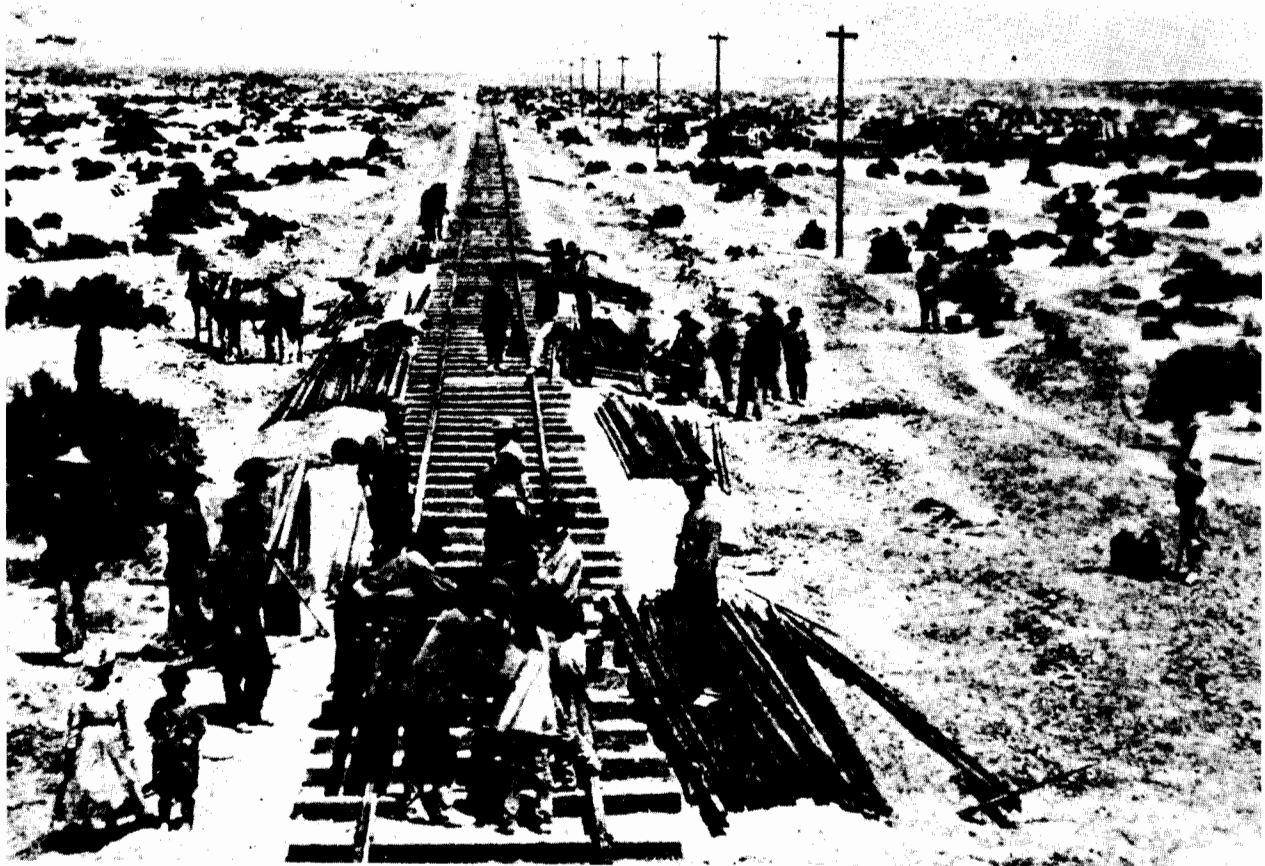


Figure 10: Track laying in the Great Salt Lake Desert
(Golden Spike National Historic Site)



Figure 11: Track laying in the Utah desert (Southern Pacific, Alfred A. Hart Photograph).

"From what I can observe and hear from others, there is considerable opposition between the two railroad companies, both lines run near each other, so near that in one place the U.P. is taking a four foot cut out of the C.P. fill to finish their grade, leaving the C.P. to fill the cut thus made, in the formation of their grade.

"The two companies' blasters work very near each other, and when Sharp and Young's men first began work, the C.P. 'let her rip.' The explosion was terrific. The report was heard on the Dry Tortugas, and the foreman of the C.P. came down to confer with Mr. Livingston about the necessity of each party notifying the other when ready for a blast. The matter was speedily arranged to the satisfaction of both parties." (Deseret Evening News, March 31, 1869, in Kraus 1969a:238).



Figure 12: Parallel railroad grades near Metataurus, Utah.
Central Pacific, foreground, Union Pacific, middle ground (BLM Photograph)

With limited grade construction remaining for both railroads, Leland Stanford awarded a construction contract to Mormon Church leader Brigham Young amounting to more than \$2,000,000. Brigham subcontracted the work to prominent church members and ward bishops. Among them were Joseph Young, President Lorenzo Snow, Ezra T. Benson of Logan, Mayor Lorin Farr, and Chauncey W. West of Ogden. Although disappointed that the railroad would follow a northerly course and bypass the capitol, the Mormons were eager to see its completion (Reeder 1970:21).

The contract called for construction of 200 miles of grade west from Ogden (Reeder 1970:45). The various jobs entailed in a grading contract, for the Union Pacific in Echo Canyon, may be analogous to contracts along the Promontory Branch:

Earth excavation, either borrowed for embankment, wasted from cuts, or hauled not exceeding 200 feet from cuts into embankment, per cubic yard	\$ 0.27
Earth excavation, hauled more than 200 feet from cuts into embankment, per cubic yard	\$ 0.45
Loose rock, per cubic yard	\$1.57½
Solid lime or sand rock, per cubic yard	\$ 2.70
Granite, per cubic yard	\$ 3.60
Rubble masonry in box culverts, laid in lime or cement per cubic yard.	\$ 5.85
Rubble masonry, laid dry, per cubic yard	\$ 5.40
Masonry in bridge abutments and piers, laid in lime mortar or cement, beds and joints dressed, drafts on corners, laid in courses, per cubic yard.	\$13.50
Rubble masonry in bridge abutments and piers, laid dry, per cubic yard	\$ 7.20
Rubble masonry in bridge abutments and piers, laid in cement per cubic yard	\$ 7.65

Excavation and preparation of foundation for masonry at estimate of engineer.

(Deseret Evening News, May 20, June 9, 1868 in Reeder 1970:31-32).

Virtually all the earth moving was accomplished with hand tools and horse-drawn carts. Nitroglycerin was limited and blasting powder was used for large rock cuts.

Records of Mormon construction camps are limited. Field investigations near Promontory Summit found architectural features diagnostic of grade and track laying camps (Anderson 1978 & 1980). The authors and Anderson identified tent platforms and dugouts, some with masonry walls and fireplaces. West of the Promontory Mountains, the authors failed to locate isolated grade construction and track laying camps other than those which later became railroad maintenance stations. This may be explained by the relatively flat terrain of the Great Salt Desert. Consequently grade construction moved rapidly (Appendix I) and housing became less permanent.

News accounts that describe Mormon grading in Echo Canyon for the Union Pacific, provide an impression of what camps may have been like in the Salt Desert:

Echo City, July 13, 1868

"BELOVED NEWS: - - We are here: and the railroad is coming. Already it is estimated, one half, if not more of the track down Echo Canyon is ready for the ties and rails.

"A birds-eye view of the railroad camps in Echo Canyon would disclose to the beholder a little world of concerted industry unparalleled, I feel safe to assert, in the history of railroad building. All classes of profession, art and avocation, almost, are represented. Here are the ministers of the gospel and the dusky collier laboring side by side. Here may be seen the Bishop on the embankment and his 'diocese' filling their carts, scrapers and shovels from the neighboring cut. Here are the measurer of tapes and calico and the homeopathic doctor in mud to their knees or necks turning the course of the serpentine torrents.

"Here the driver of the quill finds grace in propelling a pick. The man of literature deciphers hieroglyphics in prying into the seams of sand rock. 'Our Local,' when last seen, was itemizing on a granite point with sledge and drill to beat 300 yards or less into 'kingdom come,' or a big fill hard by; and 'Our Hired Man' had pitched into a dugway of loose rock high upon the mountain side, several fathoms above 'eternity's gulf stream' to carve out a new channel for the tide of travel, the track for the iron horse having absorbed the Pioneer road. Here the grey haired scissors-grinder and the editor returning to his wits, with a third party, supposed to be, had formed a co-partnership to run a cart without a horse on a hill side cut. One there was of the homogenous who 'plead' leave of absence to defend a contraband distillery. But such an illustrious corps of practical railroad makers must surely leave their mark. The above are real life pictures . . ." (Deseret News, July 22, 1868 in Reeder 1970:33-34).

Clarence Reeder summarized the Mormon railroad construction efforts:

"A people working together in harmony under the guidance of their religious leaders to accomplish a temporal task which they treated as though it were divinely inspired." (Reeder 1970:35).

A Mormon railroad grader, James Crane from Sugarhouse, Utah penned this song which typifies the industrious gaiety of the Mormon workers:

*"At the head of great Echo there's a railroad begun,
And the "Mormons" are cutting and grading like fun;
They say they'll stick to it, till it is complete
And friends and relations they long again to meet.*

CHORUS

*Hurrah! Hurrah! for the railroad's begun!
Three cheers for our contractor, his name's Brigham Young!
Hurrah! Hurrah! we'er honest and true,
For if we stick to it's bound to go through.*

*Now there's Mr. Reed, he's a gentleman true,
He knows very well what the "Mormon" can do;
He knows in their work they are lively and gay,
And just the right boy's to build a railway.*

CHORUS - - Hurrah! Hurrah! etc.

*Our camp is united, we all labor hard;
And if we work faithfully we'll get our reward;
Our leader is wise and industrious too
And all the things he tells us we'er willing to do.*

CHORUS - - Hurrah! Hurrah! etc.

*The boys in our camp are light-hearted and gay;
We work on the railroad ten hours a day;
We'er thinking of the good time we'll have in the fall,
When we'll take our ladies and off to the ball.*

CHORUS - - Hurrah! Hurrah! etc.

*We surely must live in a very fast age;
We've traveled by ox teams, and then took the stage;
But when such conveyance is all done away
We'll travel in steam cars upon the railway.*

CHORUS - - Hurrah! Hurrah! etc.

*The great locomotive next season will come
To gather the Saints from their far distance home;
And bring them to Utah in peace here to stay,
While the judgements of God sweep the wicked away."*

CHORUS - - Hurrah! Hurrah! etc.

(Deseret News, August 12, 1868, in Reeder 1970:35-26)

During the final months of 1868, track-laying crews from the east and west began to converge on Utah. Officials from the Union and Central Pacific lobbied in Washington for approval of their rail line through Utah. Rivalry continued on both sides and as late as March of 1869, the approved route through Utah remained unclear. Finally on April 9, 1869, an agreement

was reached. The Central Pacific and Union Pacific construction crews were to join rails at Promontory Summit. Ogden, Utah would serve as the common terminus and junction of the two roads. In agreement, the Union Pacific would continue construction but the Central Pacific would pay for and own the rail line from Ogden to Promontory Summit (Kraus 1969a:241-242).

Although the route and ownership of the railroads were resolved, the spirit of competition between the Union Pacific and Central Pacific continued. Both companies raced to reach Promontory first.

Earlier that year, Charles Crocker claimed that Central Pacific could lay ten miles of track in one day. Rival construction camps of the Union Pacific laughed at the boast. Legend states that Vice President Durant of the Union Pacific wagered \$10,000 that it could not be done. Crocker covered the bet and on April 28, 1869, the Chinese and a handful of Irishmen accomplished a feat that still challenges engineers today (Kraus 1969a:248).

"The scene was an animated one (wrote the man from the Bulletin). From the first 'pioneer' to the last tamper, about two miles, there was a line of men advancing a mile an hour; iron cars with their load of rails and humans dashed up and down the newly-laid track; foremen on horseback were galloping back and forth. Keeping pace with the track layers was the telegraph construction party. Alongside the moving force, teams were hauling food and water wagons. Chinamen with pails dangling from poles balanced over their shoulders were moving among the men with water and tea."

(San Francisco Bulletin in Griswold 1962:309)

Wesly Griswold elaborates with a vivid account of the construction and day's events:

"At seven o'clock, the Central Pacific's well-drilled construction forces began their greatest day's march. At this moment, the first of five supply trains was already panting at the railhead. When the whistle of its locomotive screamed for the contest to begin, a swarm of Chinese leaped onto the cars and began hurling down kegs of bolts and spikes, bundles of fish plates, and iron rails. 'In eight minutes, the sixteen cars were cleared, with a noise like the bombardment of an army,' wrote the San Francisco Bulletin's correspondent.

"The train was then pulled back to a siding to make way for the next. As it chugged away, six-man gangs lifted small openwork flatcars onto the track and began loading each of them with sixteen rails plus kegs of the necessary hardware to bolt the rails together and fasten them to the ties. These little flatcars, called 'iron cars,' had rows of rollers along their outer edges, to make it easier to slide the rails forward and off when they were needed. Two horses, in single file, with riders on their backs, were then hitched to each car by a long rope.

"While this was being done, three men with shovels, who formed the army's advance guard and were called pioneers, moved out along the grade, aligning the ties. They did this by butting them to a rope stretched out parallel to a row of stakes that the railroad's surveyors had driven to mark the center line of the track.

"At rails end stood eight burly Irishmen, armed with heavy track tongs. Their names were Michael Shay, Patrick Joyce, Michael Kennedy, Thomas Dailey, George Elliott, Michael Sullivan, Edward Killeen, and Fred McNamara. They waited now beside a portable track gauge, a wooden framed measuring device for making sure that the rails they laid were always 4 feet, 8-1/2 inches apart. Two additional men handled the gauge, moving it just ahead of the tracklayers all day long.

"As soon as the first iron car had been hauled forward, with a Chinese gang aboard, its horses were released and led aside. The Chinese quickly stripped the car of its kegs of spikes, bolts and fish plates, and broke them open. They poured the spikes over the stack of rails, so that they would dribble onto the ground as the rails were removed. The bolts and fish plates were loaded into hand buckets to be carried where they were needed.

"The Irish tracklaying team split in half, two men taking up positions at each end of the rail car on both sides. As each forward pair grabbed one end of a rail and quickstepped ahead of it, the rear pair guided the other end along the car's rollers and eased it to the ground with their tongs. Each rail, 30 feet long and weighing an average of 560 pounds, was in place within 30 seconds.

"Behind the rail handlers followed a gang that started the spikes - eight to a rail and attached fish plates to the rail joints by thrusting bolts through them. After them, came a crew that finished the spiking and tightened the bolts. In their rear moved the track levelers, who hoisted tie ends and shoveled dirt under them in order to keep the rails on an even level. They were guided by the gestures of a surveyor 'reverend looking old gentleman,' noted the Bulletin's reporter who kept sighting along the finished track. At the back of the line tramped the biggest contingent of all - 400 tampers, with shovels and tamping bars to give the track a firm seating.

"As each iron car was unloaded, it was lifted and turned around. The horses were re-hitched to it and hauled it back to the supply dump at a run. It was lifted off the track whenever it got in the way of a full car headed for the front, and in time to prevent the latter from having to slow down.

"When the whistle blew for the midday meal, Crocker's 'pets,' as the Chinese were often called, and their Irish advance guard had built six miles of railroad. Strobridge insisted on fresh horses for the iron cars every 2-1/2 miles. He also had a second team of tracklayers in reserve, but the proud gang that had laid six miles of rails before lunch insisted on keeping at it throughout the rest of the day.

"The better part of an hour was lost after lunch at the tedious job of bending rails, for the remainder of the 10-mile stretch was a steady climb and full of curves. This was done in a crude way; by placing each rail between blocks and hammering a bend into it.

"When the curved rails were ready, the construction army resumed its march. By seven o'clock in the evening, the Central Pacific Railroad was 10 miles and 56 feet longer than it had been 12 hours earlier.

"Each man in Strobridge's (Central Pacific Construction Superintendent) astonishing team of tracklayers had lifted 125 tons of iron in the course of the day. The consumption of materials was even more impressive: 25,800 ties, 3,250 rails, 28,160 spikes, and 14,080 bolts.

As soon as the epic day's work was done, Jim Campbell, who later became a division superintendent for the Central Pacific, ran a locomotive over the new track at 40 m.p.h., to prove that the record breaking feat was a sound job as well. Then the last emptied supply train, pushed by two engines, was backed briskly down the long grade to the construction camp beside the lake, with 1,200 men riding on its flatcars."

(Griswold 1962:309-312).

A sign along the grade commemorates the race and laying of 10 miles of track in one day (Fig. 13).

On April 28, 1869, only four and eight miles respectively separated the Central and Union Pacific from their mutual goal. Considerable grade work remained, however, before the Union



Figure 13: Ten Miles of Track Laid in One Day
(Southern Pacific Photograph).

Pacific could lay tracks on in to Promontory. A newspaper of April 30, 1869 states:

"The last blow was struck on the Central Pacific Railroad and the last tie and rail were placed in position today."

(Alta Californian in Kraus 1969a:256).

The Union Pacific met the Central Pacific on Promontory Summit, May 10, 1869 and the transcontinental railroad was completed (Fig. 1, 14). A Nation previously divided by a "region of savages and wild beasts, deserts of shifting sands, and whirlwinds of dust" (Webster in Kraus 1969a:13) was now united. America obtained a network of communication and transportation that brought the Nation together. The industrial revolution was accelerated. New markets were opened in the West for finished eastern products. Vast deposits of minerals, timber resources, and agricultural lands became accessible; the country was truly united.

Accompanying the construction of the transcontinental railroad was the establishment of siding and section facilities. Each section station served a ten to twelve mile section of railway. The station housed work crews and equipment necessary to maintain and repair a specific portion of the railroad. An inventory of the Salt Lake Division of the railroad (Fig. 15) notes the original section stations built in 1869. These stations, Lucin, Bovine, Terrace, Matlin, Gravel Pit (Ombey), Kelton, Ten-Mile (Seco), Lake, and Rozel grew into active railroad centers.

Chinese section gangs carried out maintenance work, and improvements to keep pace with deterioration and erosion. Culverts, bridges, and ties required constant attention and replacement. As locomotives grew in size and weight, section crews installed heavier rails. As rail traffic increased, water pipelines and holding tanks were installed, rebuilt or replaced.

On March 17, 1884 the Central Pacific officially became the Southern Pacific Railroad Company³ (Southern Pacific Railroad Company, 1955:31). Soon 11 rail sidings were installed to keep pace with expanded settlement, commerce, and ranching. Sidings allowed trains to pass others that had stopped to load, unload, or take on water. By 1902 as many as ten trains per day (five each direction) travelled through northern Utah (Daily Train Schedule, Box Elder News, 1902). With completion of the Lucin Cutoff in 1904, most transcontinental traffic began crossing the Great Salt Lake by trestle and merged with the Promontory Branch at Lucin. The new line, built by the Southern Pacific, was 40 miles shorter and eliminated the

3. The Southern Pacific Railroad Company was incorporated on Dec. 2, 1865 to build a rail line between San Francisco and San Diego, then east, but was purchased by the Central Pacific prior to any construction. In 1870 the "Big Four" reorganized the Southern Pacific and used its name unofficially until 1884 (Heath and Campbell, 1926-30:54-55).

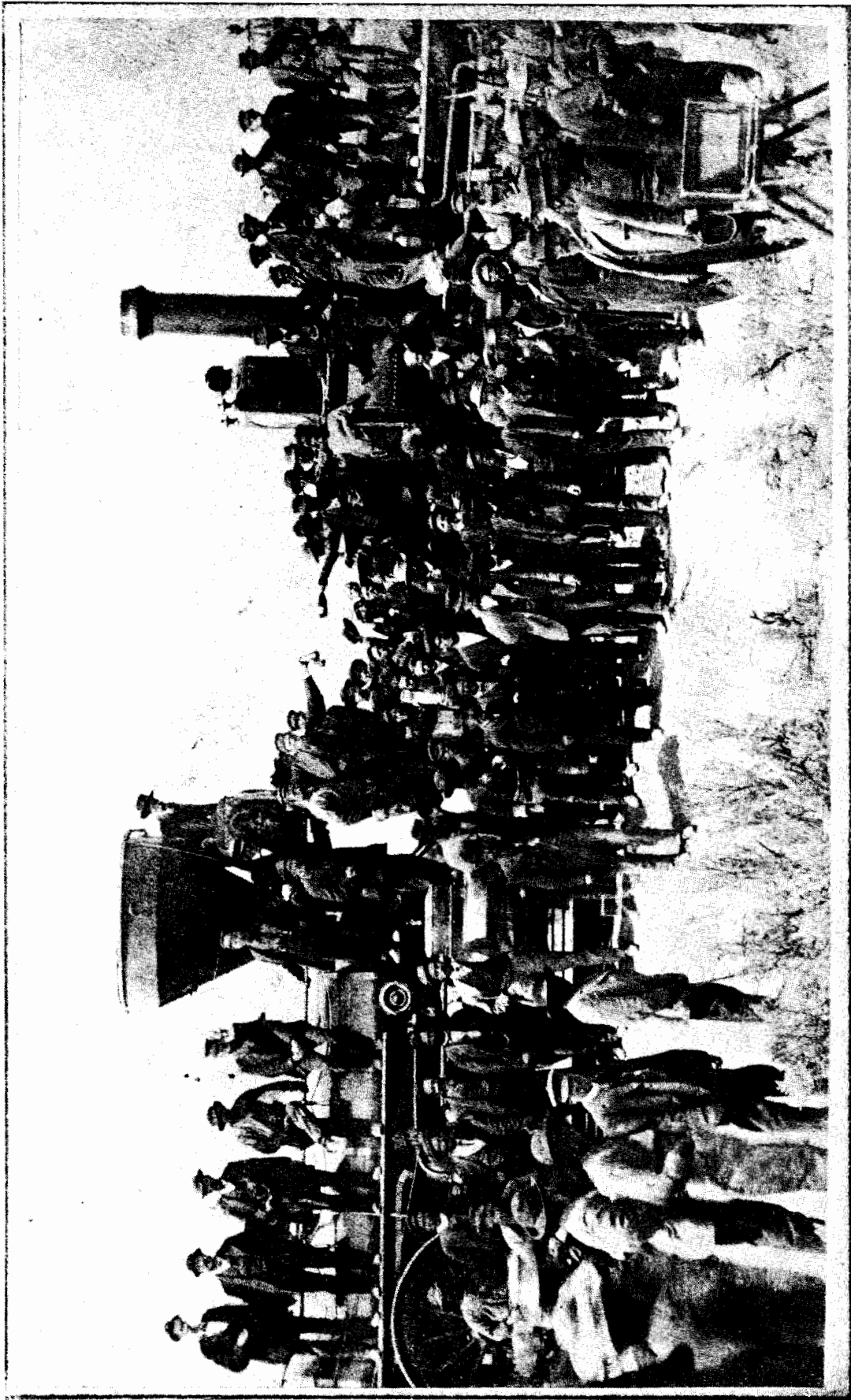


Figure 14: The meeting of the Union Pacific and Central Pacific at Promontory Summit, May 10, 1869 (Charles Russell Photo).

The following are buildings on the Salt Lake Division C. & N. R.

Stations

Canoe Machine Shop 14 x 80
 " Round House 10 stalls 60 x 17 feet 5 inches each
 " Freight House 32 x 50
 " Section House 16 x 30 feet kitchen 10 x 20 feet
 " Water tank 4 tubs Capacity 10300 Gallons telegraph office

Leray Section House 16 x 30 feet kitchen 10 x 20 feet

Montello Section House 16 x 30 feet kitchen 10 x 20 feet
 " Water tank 8 tubs Capacity 20600 Gallons telegraph office

Teoma Section House 16 x 30 feet kitchen 10 x 20 feet

Lucine Water tank 4 tubs Capacity 10300 Gallons
 " Section House 16 x 30 feet kitchen 10 x 20 feet telegraph office

Bovine Section House 16 x 30 feet kitchen 10 x 20 feet

Torace Machine Shop 80 x 117 feet
 " Round House 10 stalls 60 x 17 feet 5 inches each
 " Car Shop 60 x 140 feet
 " Water tanks 2 with 4 tubs each Capacity 20600 Gallons telegraph office
 " Section House 16 x 30 feet kitchen 10 x 20 feet

Matten Section House 16 x 30 feet kitchen 10 x 20 feet

Gravel pit Section House 16 x 30 feet kitchen 10 x 20 feet

Cotton Freight House 32 x 50
 " Water tank 8 tubs Capacity 20600 Gallons
 " Section House 16 x 30 feet kitchen 10 x 20 feet telegraph office

10 Mile Section House 16 x 30 feet kitchen 10 x 20 feet

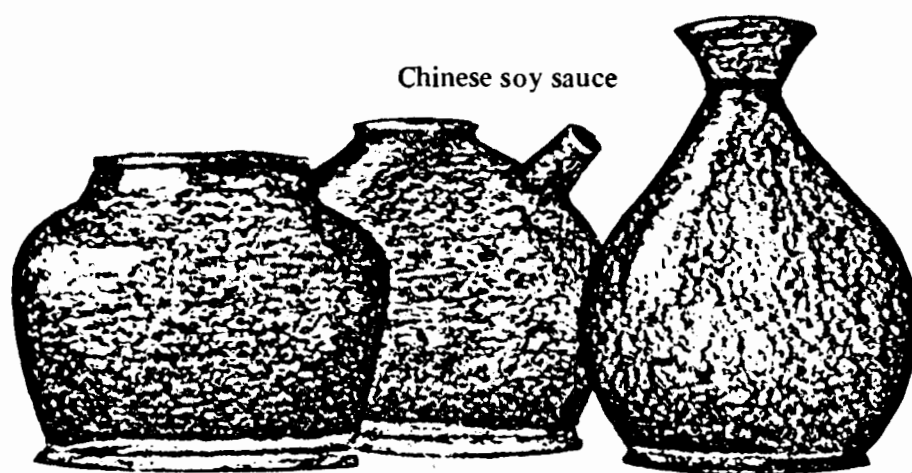
Lake Section House 16 x 30 feet kitchen 10 x 20 feet

Rozel Water tank 4 tubs Capacity 10300 Gallons
 " Section House 16 x 30 feet kitchen 10 x 20 feet telegraph office

Remontoy House 18 x 24 used as Freight and telegraph office
 J. C. Campbell
 (Director)

Figure 15: An 1869 inventory of buildings on the Salt Lake Division of the Transcontinental Railroad (Courtesy of Southern Pacific).

difficult grades of the Promontory Branch (Fig. 16). Shortly after completion of the cutoff, the workmen, their families, and the support public, whose livelihood depended upon the railroad and the Promontory Branch, began leaving. Only a few trains a week passed through (Beebe 1963:120). In 1942, the rails were removed for steel in World War II and the ties scavenged for the fence posts (Golden Spike Oral History, Larsen 1979). Today, the few people who travel the route are hunters, recreationists, and railroad buffs.



Chinese dried vegetable jar

Chinese soy sauce

Chinese alcohol

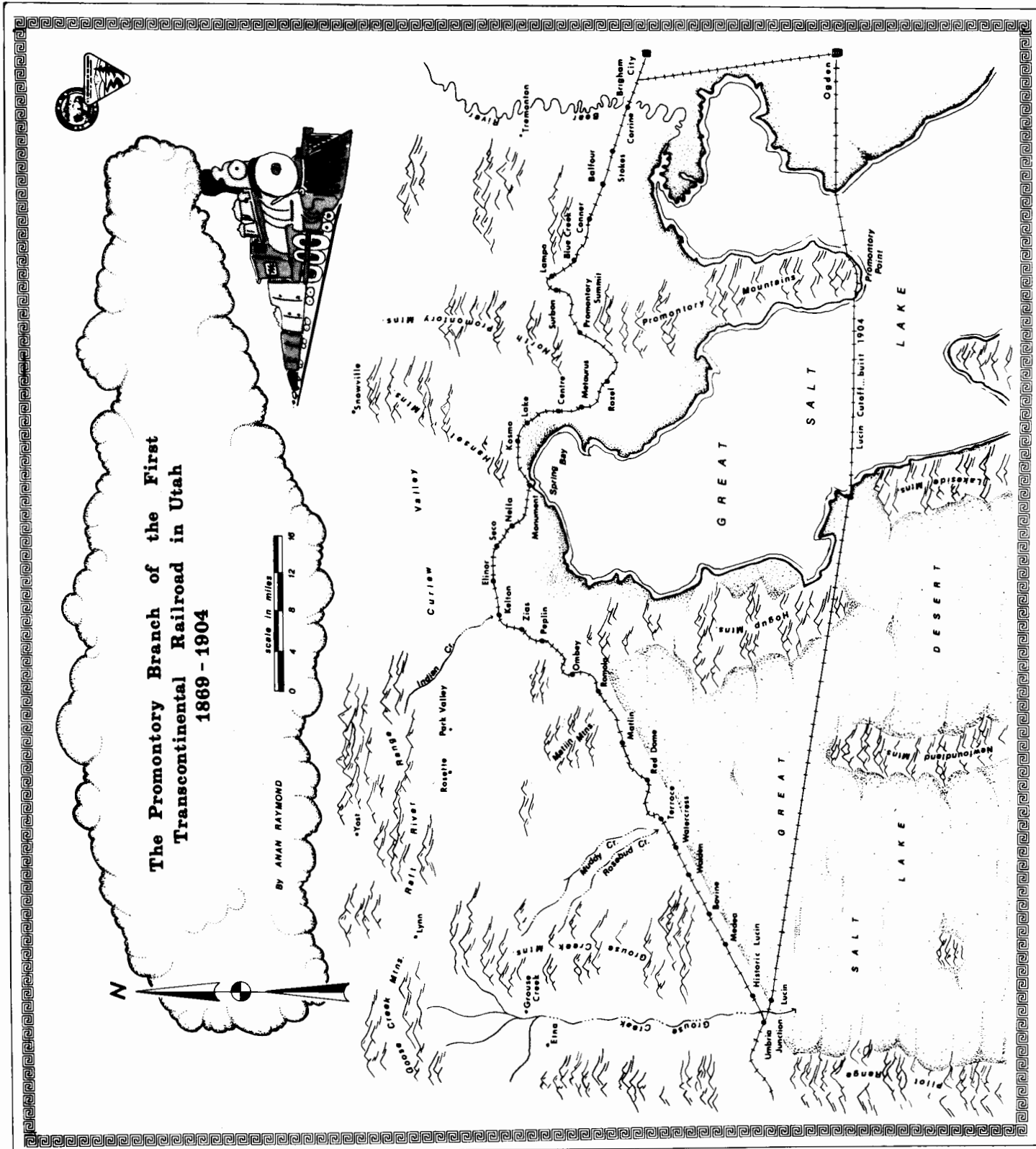


Figure 16: The Promontory Branch of the Transcontinental Railroad, 1869-1904.

THE PROMONTORY BRANCH STATIONS

Original cadastral survey maps and documents from the Southern Pacific Railroad Company have proved invaluable for research of the facilities along the Promontory Branch. The integration of information from these sources, coupled with field investigations, made it possible to identify, locate, and date the operations for 28 stations along the abandoned railroad grade between Nevada and Promontory Summit (Fig. 16, 18, 19 and Appendix I).

Railroad stations are distinguished by differences in function (section stations and freight sidings) and by dates of use. Section stations include the original stations built in 1869 as shown in Figure 15. These include historic Lucin, Bovine, Terrace, Matlin, Gravel Pit (Ombey), Kelton, 10-Mile (Seco), Lake, and Rozel. As the Central Pacific Railroad progressed eastward, sites for section stations were located and built upon. Some of the section stations correspond to end of track construction camps. Work crews would be left behind to build the section station as the vanguard of the railroad construction forces moved on to Promontory.

Ten to twelve miles of track separate each section station. The stations contained the facilities and materials necessary to accommodate work crews responsible for maintenance of the ten to twelve mile section of track. Some of the tasks that section crews performed include maintenance and replacement of culverts and bridges, replacement of railroad ties and ballast, and installation of newer heavier rails to accommodate ever larger locomotives. Water aqueducts, wells, and holding tanks required renewal and enlargement. Section stations were also the homes of locomotive engineers who often ran "helper" engines which aided freight-laden trans-continental trains over steep grades.

The typical facilities at a section station included a section house, eating and sleeping accommodations, water tank, freight platform, light duty turntable (later replaced with a wye), a siding, and/or a spur. Terrace was the largest section station; in fact it served as the principal maintenance and repair outlet for the Promontory Branch.

Freight sidings, included Medea, Walden, Watercress, Red Dome, Romola, Peplin, Zias, Elinor, Nella, Monument, Kosmo, Centre, and Metataurus. Most of the freight sidings were installed around the turn of the century to accommodate the ever increasing rail traffic, population growth, and grazing industry. Railroad sidings at section stations as well as at freight stations allowed trains to pass others going in the opposite direction and those trains loading freight or taking on water. The facilities at a freight siding included a loading platform, train carbody, and a siding. There is no evidence that permanent populations inhabited freight sidings.

Construction camps, towns and stations are described in order of location from Nevada eastward to Promontory Summit. The legal locations provided may appear erroneous since sidings or towns are often linearly extensive along the track grade, many approaching one-half of a mile long. Legal locations refer to the point where Southern Pacific Railroad officials have determined the station's mileage from One Market Plaza, San Francisco.

The following definitions, particularly applicable to the succeeding station descriptions are included here as an aid and convenience to the reader.

Definitions

Round house - An arc shaped building for housing and repairing locomotives.

Section house - The house and facilities necessary to accommodate section crews responsible for maintenance of a designated linear section of track (about ten to twelve miles).

Siding - Sidings, approaching half a mile in length, were installed parallel to the main track to allow trains to pass slow moving or on-coming traffic. An additional use included the loading/unloading of freight or livestock. Note: Not to be confused with handcar pull-offs.

Train carbody - A dismantled railroad car placed upon level ground, for use as living quarters, storage, or as a freight office.

Turntable - A railroad track platform which rotates allowing locomotives to turn around.

Wye - A "Y" shaped railroad siding which enables locomotives to turn around (Fig. 17).

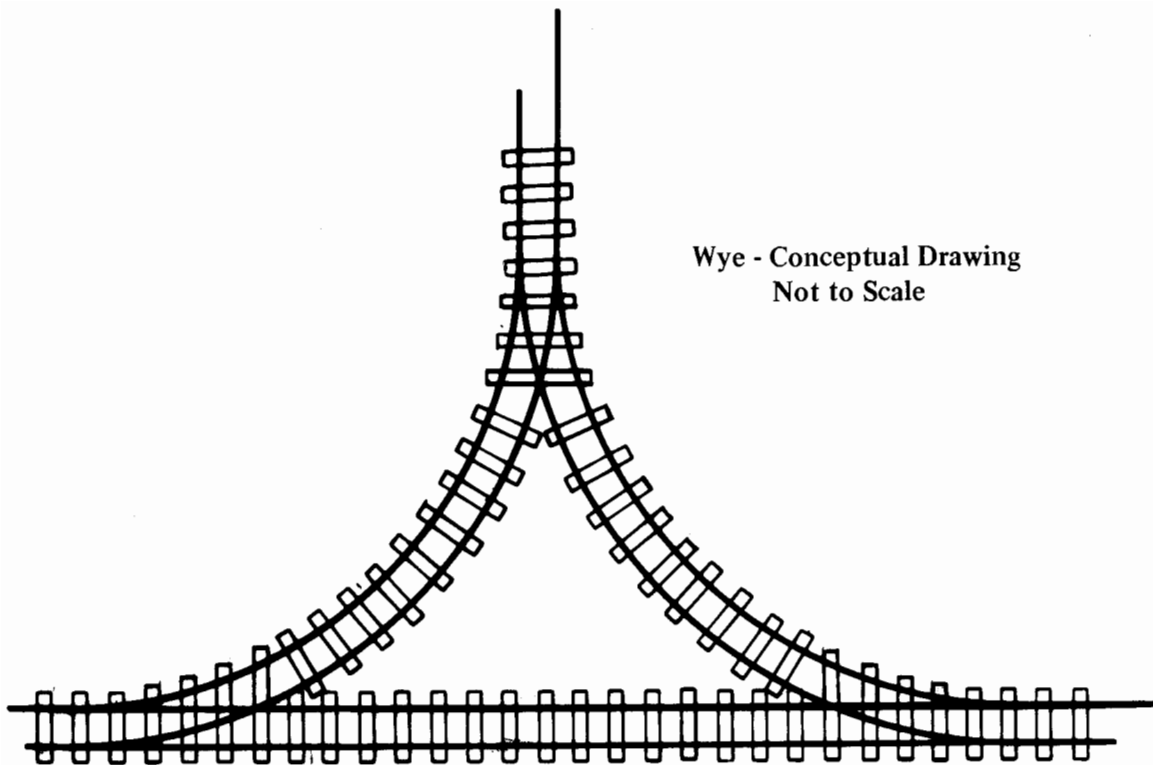


Figure 17: Wye's replaced light duty turntables at many section stations near the turn of the century to turn the newer heavier locomotives around.

DIAGRAM OF THE SURVEY

OF THE
SECOND AND THIRD STANDARD PARALLELS NORTH, GUIDE MERIDIAN AND
EXTERIOR LINES IN UTAH TERRITORY BY G.V.M.

BOUTELLE DEPUTY SURVEYOR UNDER HIS
CONTRACT NO. 33 DATED THE 6TH

DAY OF JULY 1872.

Survey Commenced August 9TH 1872.
Survey Completed September 21ST 1872.

Scale: 3 Miles = 1 Inch.

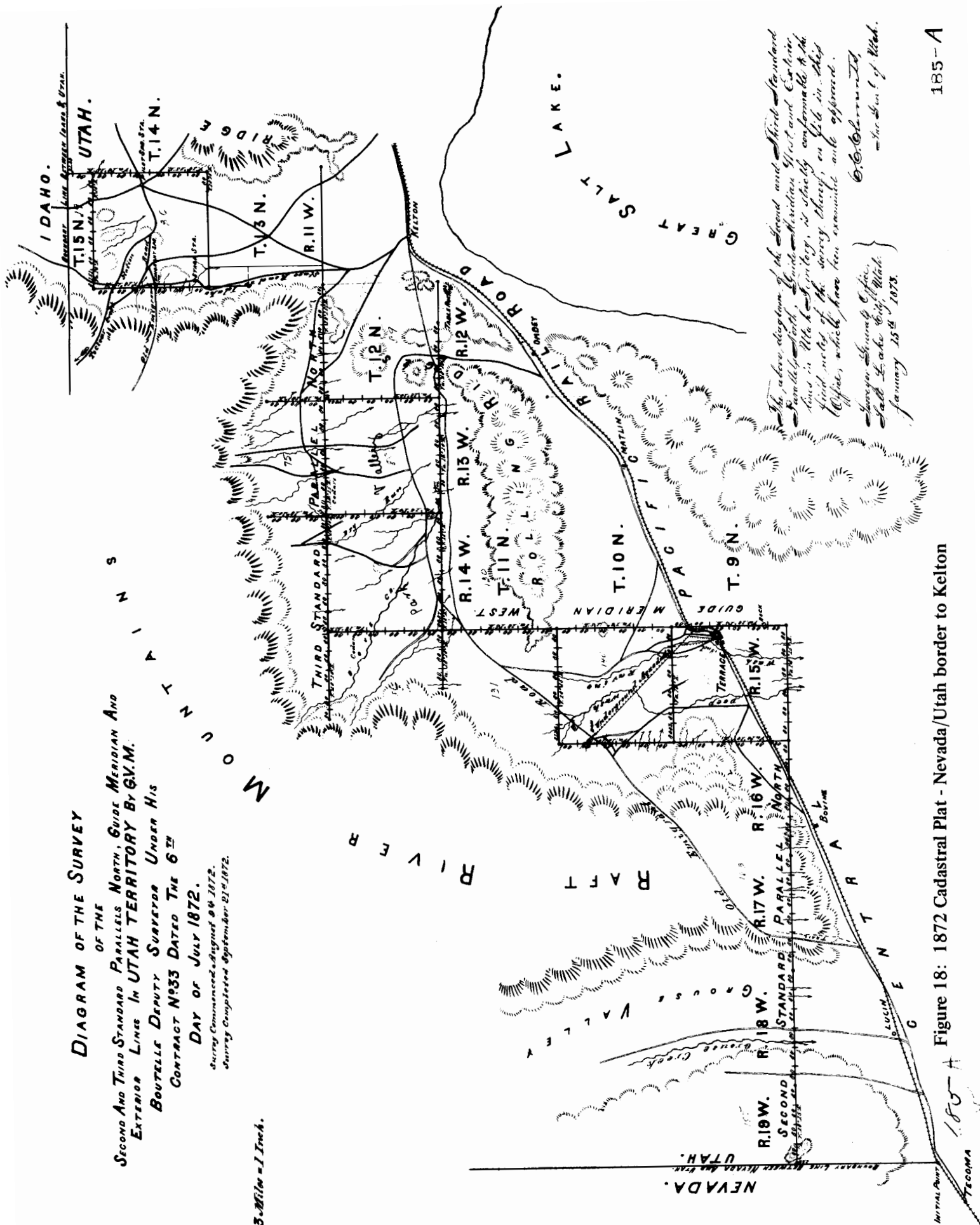
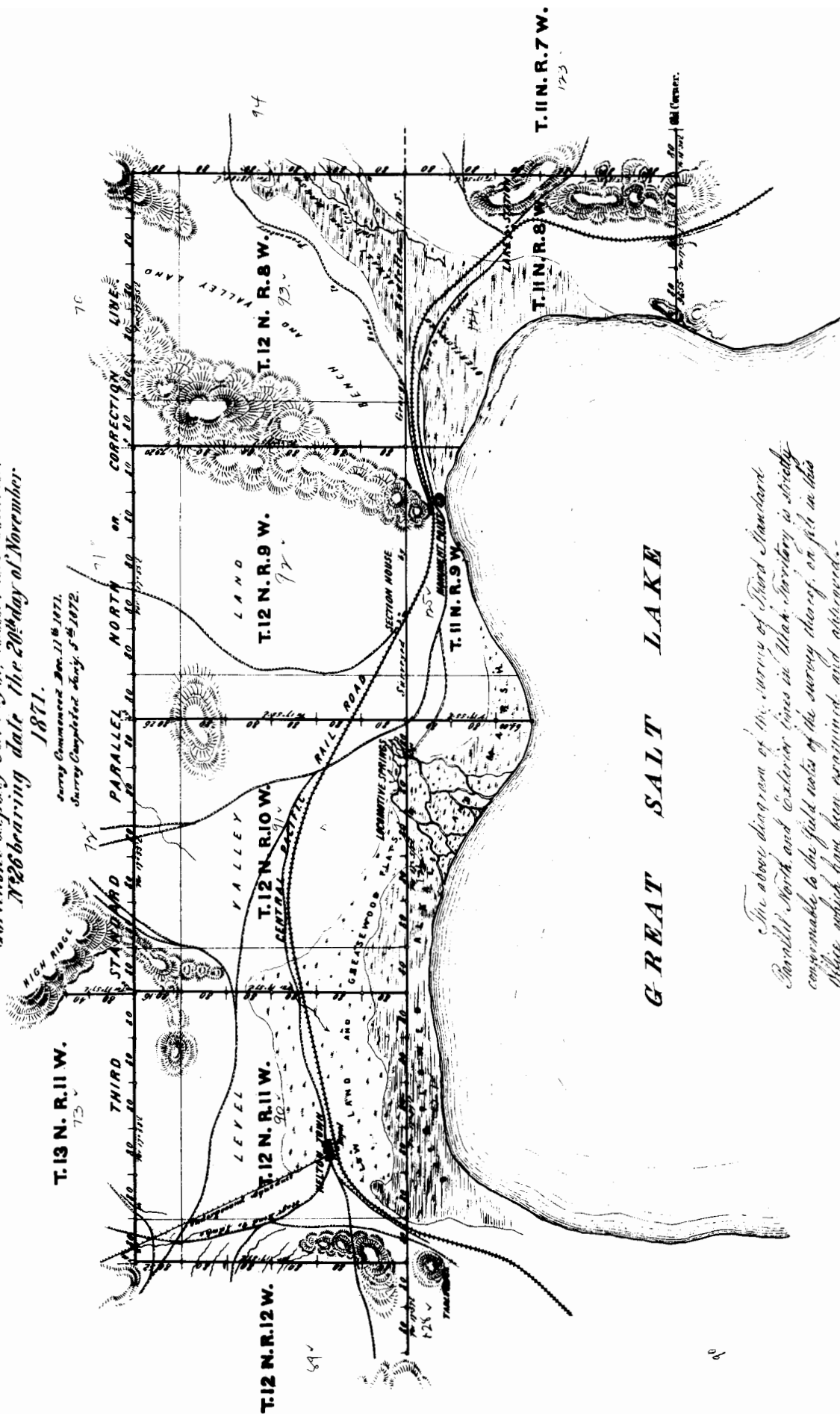


Figure 18: 1872 Cadastral Plat - Nevada/Utah border to Kelton

DIAGRAM of the SURVEY

of the
Third Standard Parallel North
and Exterior lines in Utah Territory, by Joseph
Gorlinski deputy surveyor, under his Contract
No 26 bearing date the 20th day of November
1871.

Survey Commenced Dec. 11th 1871.
Survey Completed July 5th 1872.



The above diagram of the survey of Third Standard
Parallel North, and Exterior lines in Utah Territory is strictly
conformable to the field notes of the surveying, on file in this
Office, which have been examined, and approved.

Surveyor General's Office
Salt Lake City Utah Jan.
January 30th 1872.

Scale of 120 Chains to an inch

G. S. Chas. ...
Surveyor General

Figure 19: 1871 Cadastral Plat - Kelton to Lake

UMBRIA AND HISTORIC LUCIN

Umbria - Railroad use: 1869 - ca. 1875

678.8 miles from San Francisco

T. 7N., R. 18 W., Sec. 4 NW¼, SLM

Historic Lucin⁴ - Railroad use: 1875 - 1907

680.5 miles from San Francisco

T. 7 N., R. 18 W., Sec. 3 NE¼, SLM

(Renamed Grouse in 1905)

Railroad track plat maps refer to the location of the convergence of the 1904 Lucin Cutoff with the Promontory Branch as Umbria Junction. No facilities ever existed here (Fig. 20). One-half mile east of Umbria Junction, adjacent to Grouse Creek on the Promontory Branch, is the site of Umbria (Railroad Station Plat, Fig. 21). A station here corresponds to an end of track camp named Lucin by Kraus (1969a:310) and the 1869 building inventory, Figure 15. For clarification, the authors refer to the site as Umbria. Field investigations identified remains of a siding and foundations of dugouts and other structures. Artifacts observed on the surface of the site suggest a short-lived occupation established in 1869 by Euro-Americans and Chinese.

4. Not to be confused with present day Lucin.



**Figure 20: Looking west at Umbria Junction
today from the abandoned Promontory Branch Grade
(BLM Photo)**

(Rendered from Southern Pacific track plats and station plans, cumulative data from 1869 to 1926)

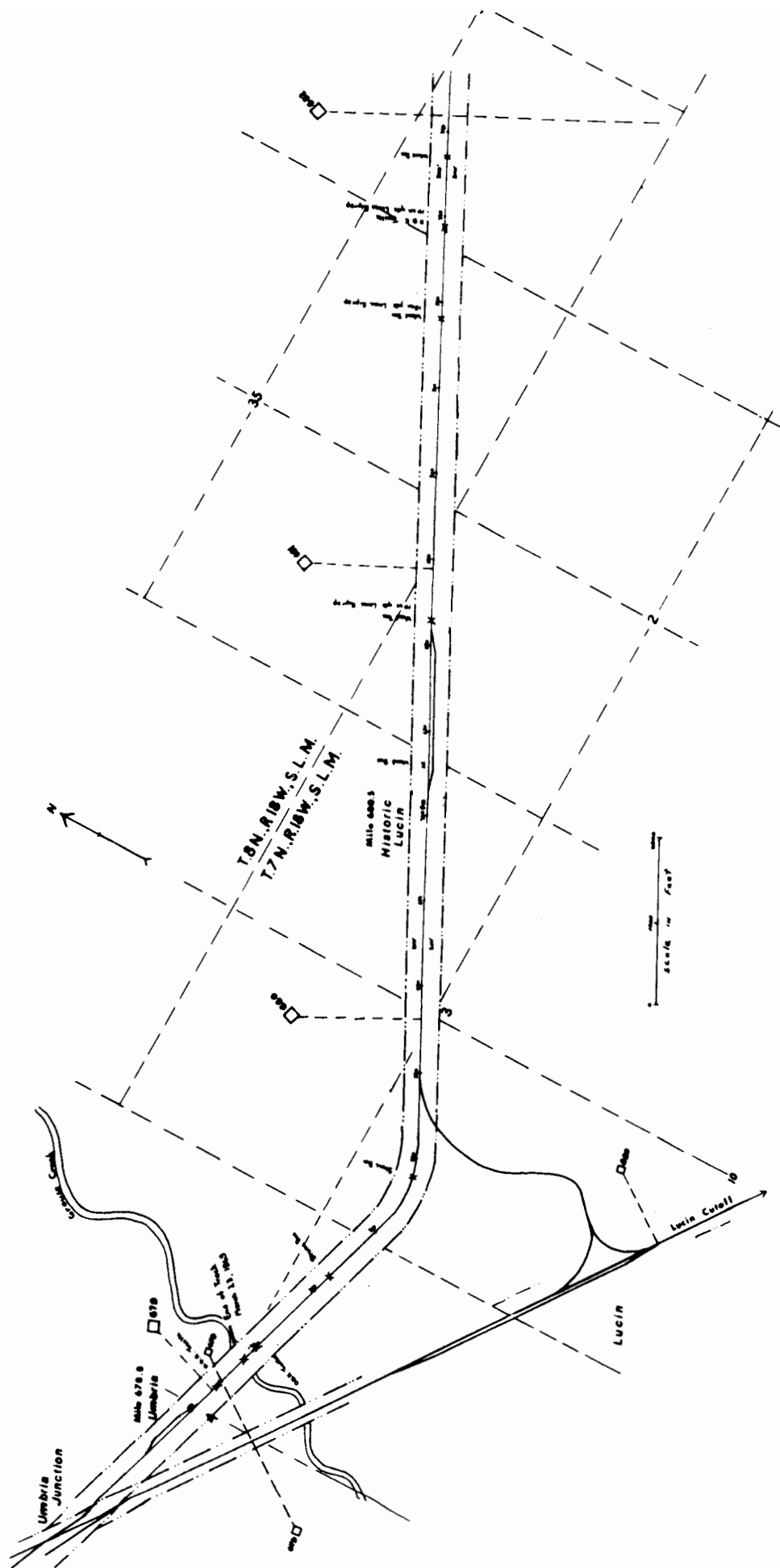


Figure 21: Umbria and Lucin (compiled from Southern Pacific Railroad plats, station plans, and profiles).

Engineering records indicate that a section station called (historic) Lucin was established on July 6, 1875, at mile post 680.5. That location is 1.7 miles east of Umbria station. This infers that section facilities were relocated from Umbria station to (historic) Lucin. Railroad documents show that (historic) Lucin contained a foreman's house and train car body north of the grade and a section house and Chinamen house south of the grade. Onsite investigations verified the locations of these structures (Fig. 22). Dating of surface artifacts suggests that occupation lasted into the 20th Century. Unfortunately, uncontrolled collecting and excavation by looters at historic Lucin, have badly damaged this site.

In 1904 the name "Lucin" was transferred and applied to nearby facilities on the newly completed Lucin Cutoff. (Today a railroad station and a small community still carries the name.) Historic Lucin was renamed Grouse and finally dismantled by the railroad in 1907.

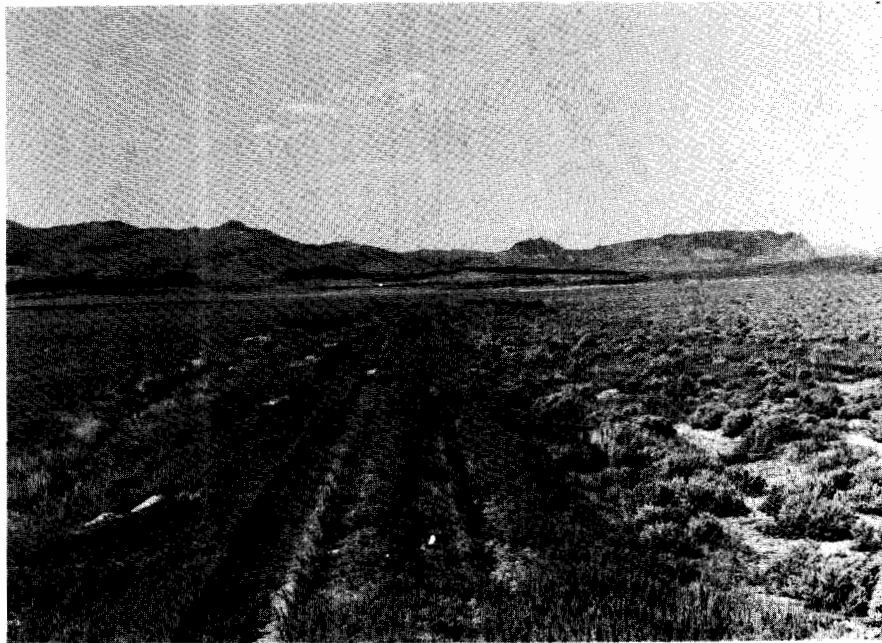


Figure 22: Historic Lucin (looking west) - note the cleared area on the left where the facilities were located (BLM photo)

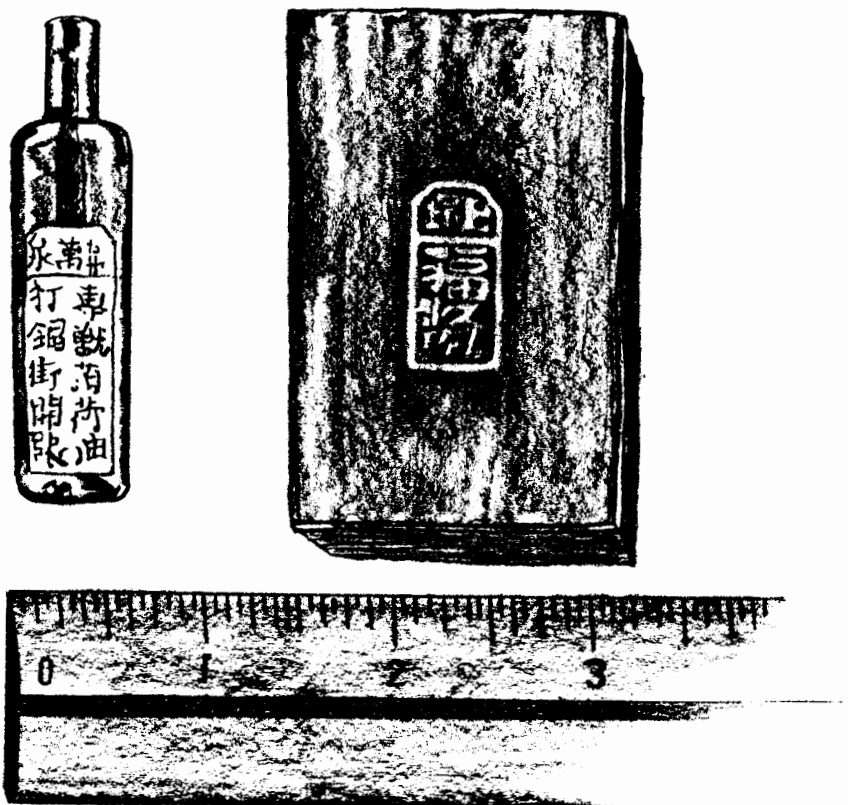
MEDEA

Railroad use: 1899 - 1906

686.4 miles from San Francisco

T. 8 N., R. 17 W., Sec. 22 SW $\frac{1}{4}$, SLM

Medea was apparently uninhabited. The siding probably provided freighting facilities to local sheep ranchers. Field investigations did not locate any features or cultural materials.



Chinese medicine bottle and opium tin.

BOVINE

Railroad use: 1869 - ca. 1905

691.6 miles from San Francisco

T. 8 N., R. 16 W., Sec. 8 NE¼, SLM

Bovine served as a section station. In 1869, facilities included a section house, train car body, Chinese bunk and cook house, and a water tank (Fig. 24). Southern Pacific station plans indicate that section gangs built a freight platform and replaced some of the Chinese bunk-houses in 1885. Figure 23 looks west at Bovine Station today.

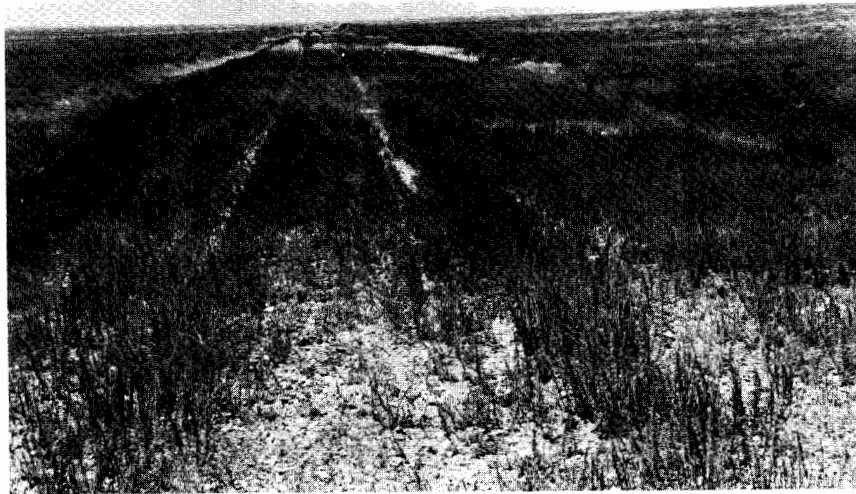


Figure 23: Looking west at Bovine Station today.
(BLM photo)

Collectors have extensively looted the site including the Chinese occupied area. Surface evidence indicates that habitation of Bovine was primarily limited to the 19th century. Features today include a bake oven excavated into the side embankment of the railroad grade

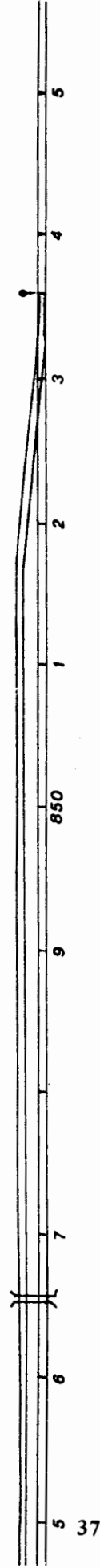
BOVINE.

Mile 691.6

Sta. Pt. 848+755

Scale 100 feet to 1 inch.

X 200'



X 200'

Length of Siding 1894 feet. extended east & west 15 feet May 1883.

Figure 24: Bovine section station (compiled from Southern Pacific station plans).

and a brick walkway leading from the rear of a house foundation (presumed to be the section house) to an outhouse (Fig. 25). Bovine probably was abandoned with completion of the Lucin Cutoff; however, the siding continued to be used for a time by local ranchers.



Figure 25: Outhouse foundation at Bovine
(BLM photo)

WALDEN

Railroad use: 1898 - 1906

697.5 miles from San Francisco

T. 9 N., R. 15 W., Sec. 30 SE¼, SLM

Railroad records show construction of the Walden siding in 1898. No permanent structures were built. No materials or features, other than the siding, are evident today (Fig. 26).



**Figure 26: Looking west at Walden Siding
(BLM photo)**

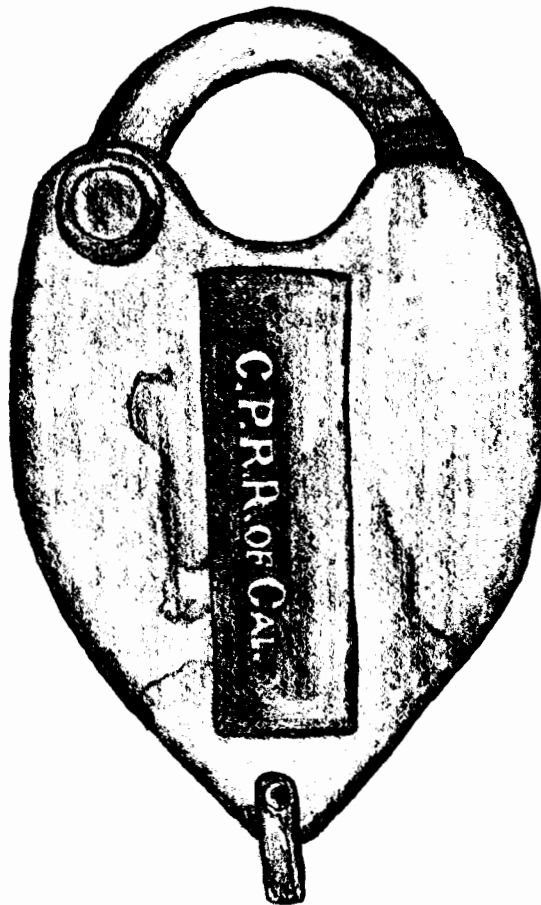
WATERCRESS

Railroad use: 1910 - ca. 1940

699.8 miles from San Francisco

T. 9 N., R. 15 W., Sec. 22 SW $\frac{1}{4}$, SLM

Watercress served as a principal freight and siding locale for area ranches early in this century. Nineteenth Century railroad records do not document the site. Field investigations and time sensitive artifacts suggest that establishment of Watercress was prompted by the abandonment of Terrace, two miles to the east. Early in the 20th Century, the Terrace waterline was rerouted to Watercress and south to the Lemay siding on the Lucin Cutoff. Railroad documents of 1926 record other facilities at Watercress including corrals, a barn, a stock pond and water tank, and a loading platform. Watercress was abandoned around 1940 (Fig. 27, 28).





**Figure 27: Root cellar at Watercress
(BLM photo)**



**Figure 28: Stock pond at Watercress
(BLM photo)**

TERRACE

Railroad use: 1869 - ca. 1910

702.1 miles from San Francisco

T. 9 N., R. 15 W., Sec. 13, SLM

Terrace served the Central Pacific as the maintenance and repair headquarters for the Salt Lake Division (Wells, Nevada to Ogden, Utah). Facilities included a 16-stall roundhouse, machine shop, coal sheds, water tanks, and an eight-track switchyard (Fig. 29, 30). Terrace, sustained by the railroad shops, prospered and became a population center in northwestern Utah (Fig. 31, 32, 33, and 37).

Terrace was described as supporting "good business stores, a school, Wells Fargo and Company Express, railroad and telegraph agents" (Utah State Gazetteer 1900). Businesses and proprietors in 1880 included:

Barber	Brown, George
General Store & Mill	Cave and Hindley
Restaurant.	Grant, F. E.
Groceries & Meat.	Grose, William J.
Hotel.	Hedges, W. G.
Hotel.	Kine, N. M.
Postmaster/General Store	Parry, W. H.
Livestock.	Pearson & Eager
Meat Market	Rowse, J. J.
Justice of the Peace/Saloon.	Smith, N.
Fruit & Vegetables	Smith, J. T.
Constable	Welch, Samuel

(McKenney 1880 and Utah Gazetteer 1900)

Business buildings lined a wide avenue north of the tracks. Residential structures, scattered and illogically placed in the earliest years, were normally located south of the tracks. A communal center and structure known as the Athenium contained bath houses and a reading room or library. Carr (1972:12) indicates that each resident was asked to pay a small tax to support the facility. The Athenium or library is often confused with the remains of a large red brick building shown in Figure 41 (cf Carr 1972:12, Tinker 1964:20). According to railroad station plans (Fig. 30), the brick building housed railroad offices and shops.

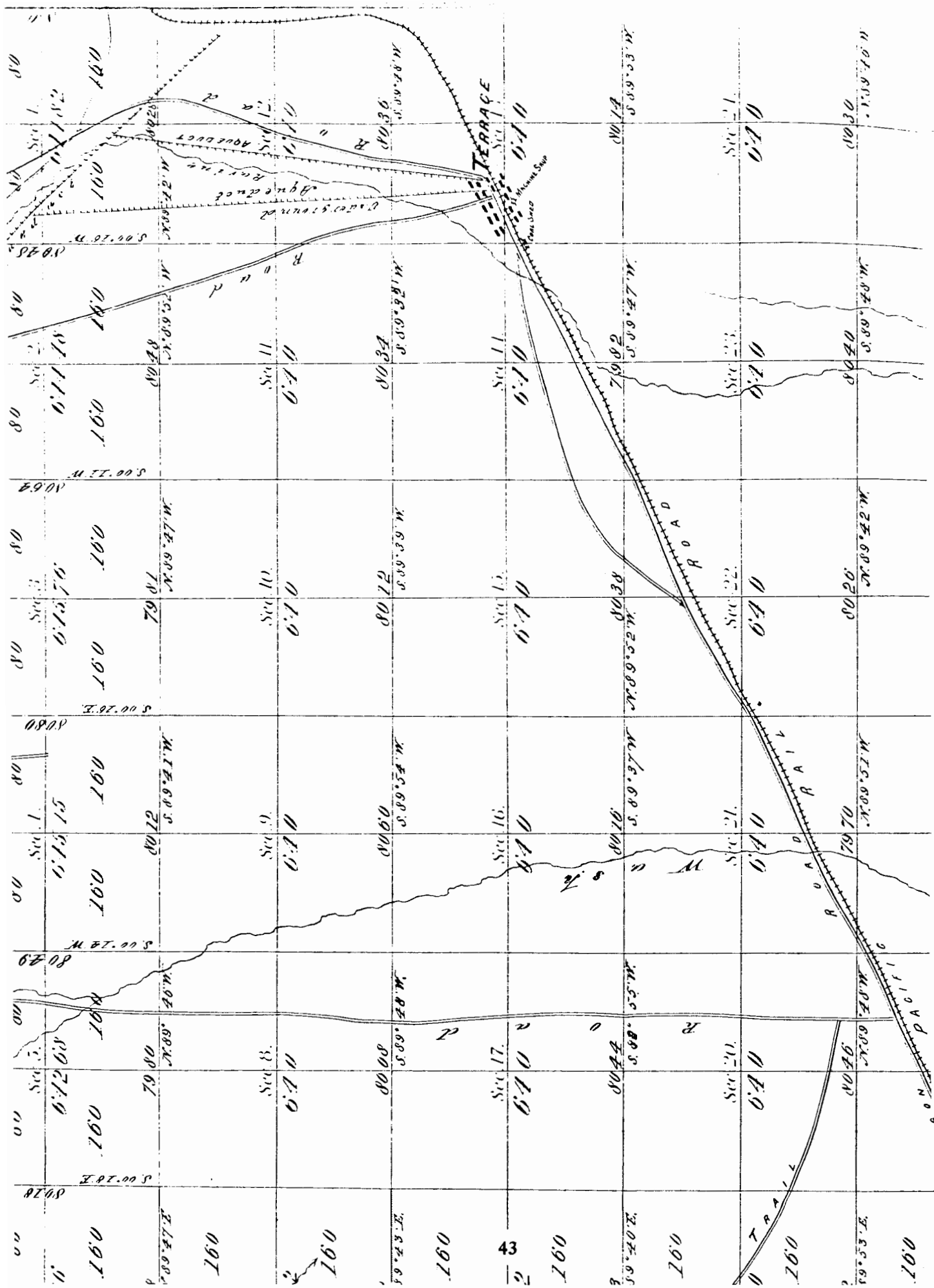


Figure 29: 1873 Cadastral Plat showing Terrace T.9N.,R.15W.

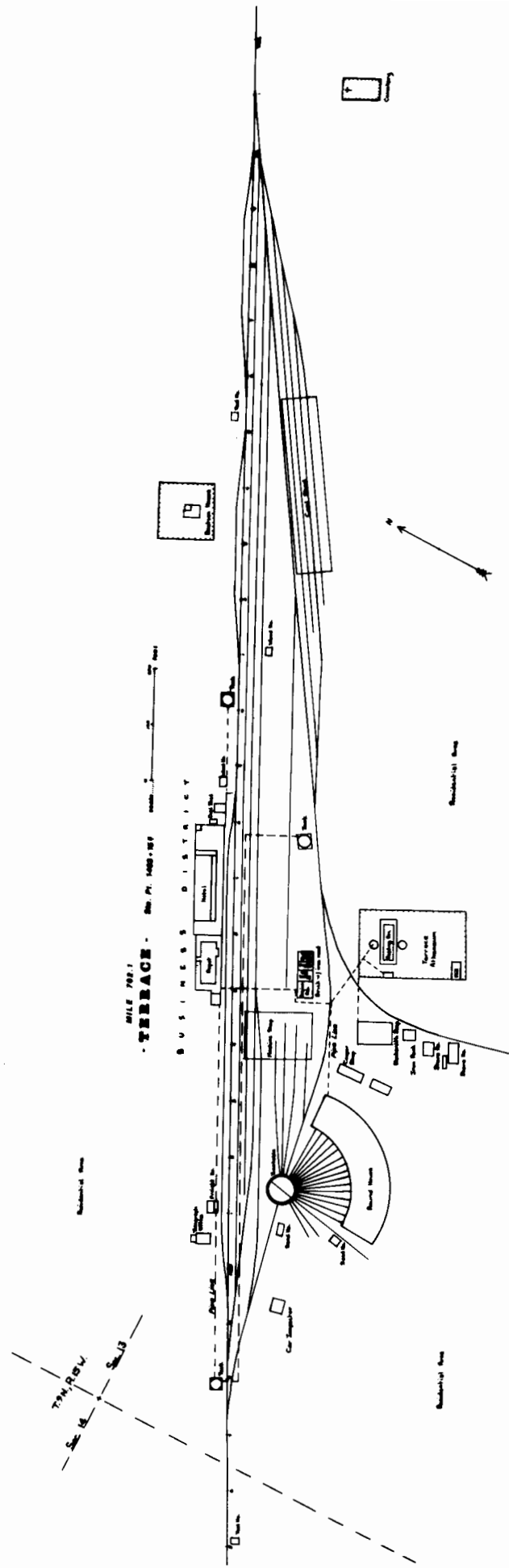


Figure 30: Terrace, (compiled from Southern Pacific station plans dating from the 1880's).

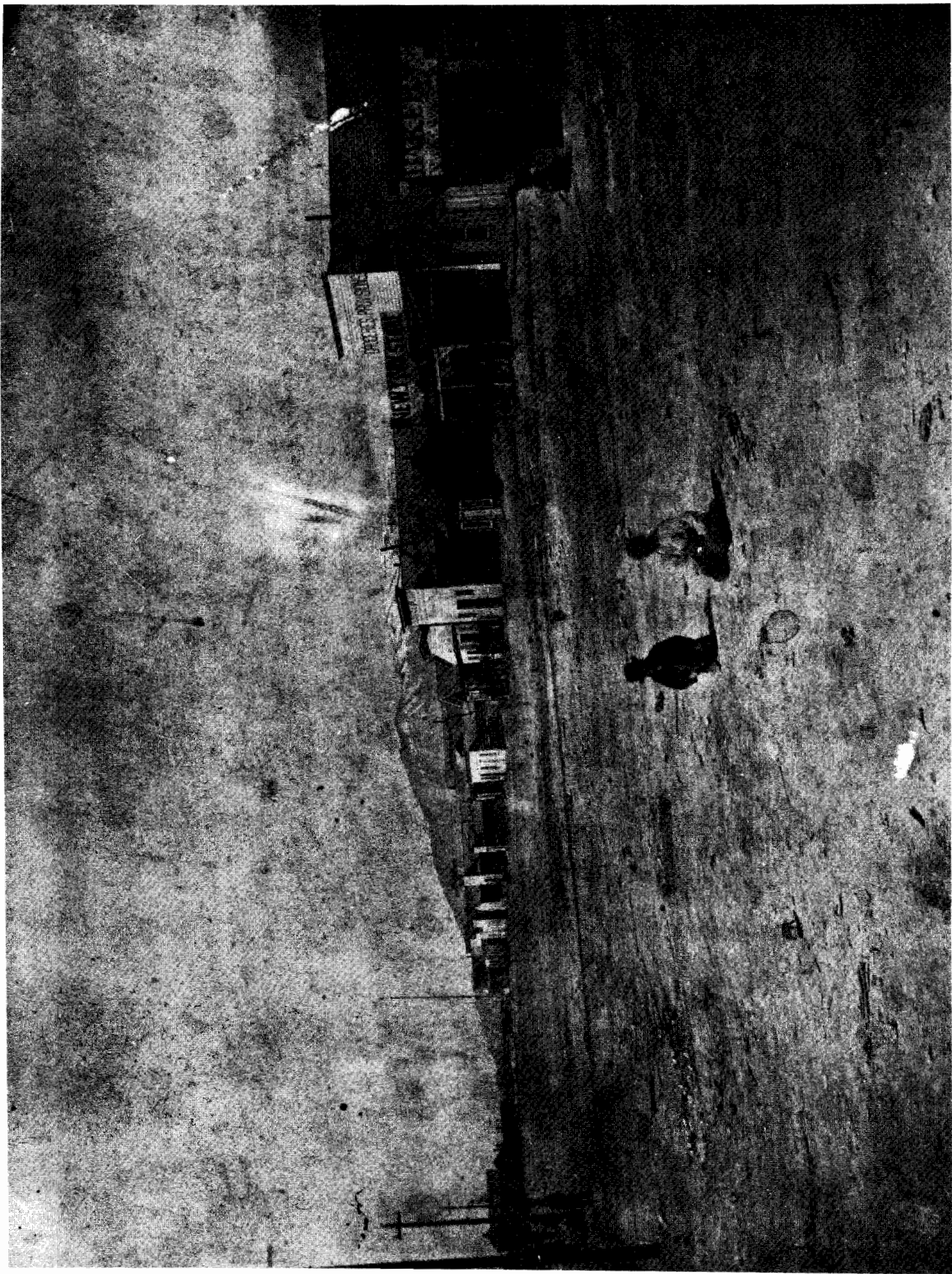


Figure 31: Terrace mainstreet in 1875 (Southern Pacific Photograph).



Figure 32: Terrace railroad depot and mainstreet ca. 1880 (courtesy of Southern Pacific).

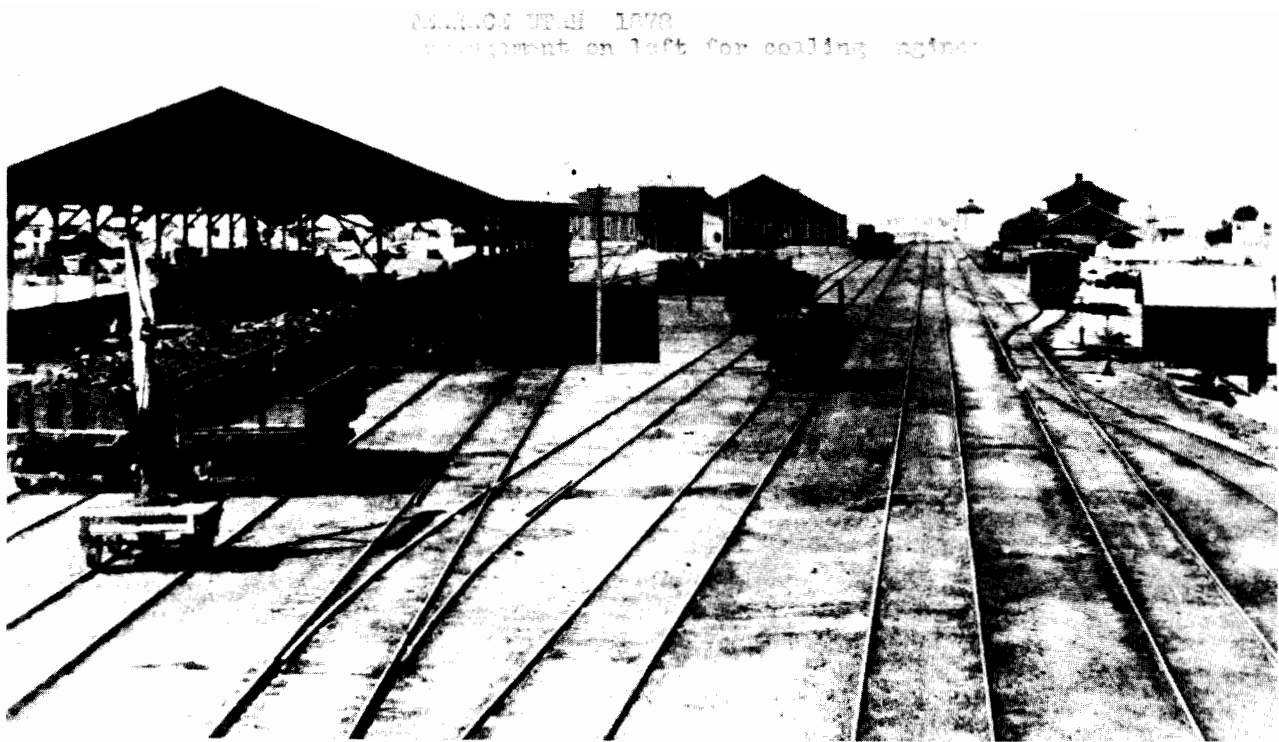


Figure 33: Looking west at Terrace Railroad yard
Structures from left to right: Coal Shed, Water Tank and Housing,
Machine Shop, Combination Depot/Hotel, Tool House
(Courtesy of Utah State Historical Society)



Figure 34: Terrace switchyard looking west
(BLM photo)

Terrace (Continued)

Population figures for Terrace vary. Tinker (1964:20) estimates 1,000 people at peak. Recorded population figures include:

1870 -----	125	(Geological Survey 1900)
1876 -----	125	(Rand McNally 1956)
1879 -----	350	(Cram 1879)
1883 -----	251	(Tulliges 1883) Registered voters only
1900 -----	274	(Geological Survey 1900)

The Chinese who continued to work for the railroad after its completion, settled in the east end of Terrace. Tinker (1964:21) estimates a population of 500 “coolies”. A census recorded a smaller Chinese population.

"According to the 1880 Census there were fifty-four Chinese in Terrace, only one of whom was a woman. Most of the men were railroad employees, but others were independent small businessmen. One man named Hong Lee "kept a store," another, Wah Hing, ran a laundry. Ching Moon was a grocer, and the only woman, true to frontier expectations, was a 28-year old prostitute. One Wong Tz Chong performed the handiwork of a tailor, and another, Ah Lei, raised vegetables in his own garden. Apparently there were two Chinese laundries in Terrace, because Wa Hop was a laundry proprietor also."
(Conley 1976:256)

Onsite investigations of Terrace identified the remains of the Chinese shanties and dugouts.

A description of a pioneer Chinatown in Nevada provides further insight:

"Ramshackle stoves provided heat and cooking facilities. Small metal lamps burning peanut oil provided light. The Celestials, as they were often referred to, slept on pallets of straw. Many of the Chinese kept small Joss sanctuaries (Joss is a Chinese pidgen english for god, derived from deus). The Joss idol was a household divinity decorated with peacock feathers, gilt, red laquer, and pictures of dragons and devils."

Wallace E. Clay lived with the Chinese of Blue Creek, Figure 16, (a siding east of Promontory Summit) from 1889 to 1892. Excerpts from his oral history are recorded by Don C. Conley in “The Peoples of Utah” (Papanikolas 1976). Clay’s observations provide a glimpse of the domestic life of Chinese in Terrace and other Promontory route stations.

"When not 'raising taps and tapping ties' those good Chinamen, among whom were 'my very best friends' were many who probably got homesick for their wives and children in China, so they took me as a sort of pet and they gave me much Chinese candy and firecrackers and Chinese money and they asked many questions about American life and I asked them many questions about life in China . . . I will now describe how my 'Chinese friends' lived at old Blue Creek Station in 1891. The antiquated box-car they lived in had been remodeled into a 'work-car,' in one end of which a series of small bunk beds had been built as a vertical column of three bunks, one above the other on both sides of the car-end from floor to ceiling so that around eighteen Chinamen could sleep in the bedroom end of the car, while the other end of the car served as a kitchen and dining room wherein there was a cast iron cook stove with its stove pipe going up through the roof of the car and with all kinds of pots and pans and skillets hanging around the walls, plus cubby holes for tea cups and big and little blue china bowls and chop sticks and wooden table and benches - - about like we now find in forest service camp grounds - - occupying the middle of the car."

(Clay in Conley 1976:264)

The Chinese cuisine included brown bayou beans, dried oysters, abalone, cuttlefish, dried bamboo sprouts, mushrooms, pork, poultry, vermicelli, rice, cabbage, dried seaweed, crackers, sugar, four kinds of dried fruit, and five kinds of dried vegetables, Chinese bacon, peanut oil, and tea. (Kraus 1969a:111).

"The cooks built their own type of outdoor ovens in the dirt banks along side of the sidetrack; and their stake pot spits along side their bunk cars, where they did most of their cooking when the weather permitted. Each cook would have the use of a very big iron kettle hung over an open fire and into it they would drop a couple of measures of Chinese unhulled brown rice, Chinese noodles, bamboo sprouts, and dried seaweed, different Chinese seasonings, and American chickens cut up into small pieces . . . When the cook stirred up the fire the concoction began to swell until finally the kettle would be nearly full of steaming, nearly dry brown rice with the cut up chicken all through it."

"Each Chinaman would take his blue bowl and ladle it full of the mixture and deftly entwine his chopsticks between his fingers and string the mixture into his mouth in one continuous operation, while in the meantime he would be drinking his cup of tea and still more tea. I was the curious kid so the cook would ladle up a little blue bowlful for me (Little Wah Lee) and hand me a pair of chopsticks and with them I would try to eat like the rest of my buddies, but I never could get the 'knack' so I would end up eating with my fingers which would make the Chinese laugh and I would get no tea."

(Clay in Conley 1976:256)

"After dinner and on weekends, one can envisage a thin haze of opium smoke lingering over Terrace's Chinese quarter. Opium looking like a thick black syrup, is smoked in pipes alone or mixed with tobacco."

(Murbarger 1963:24)

"This together with gambling was the only pleasure the poor devils had."

(Thorton in Murbarger 1963:24)

A 12-mile wooden aqueduct, from springs charging Rosebud Creek in the Grouse Creek Mountains, supplied Terrace with water for domestic and railroad use. A reservoir and structures built of ties, located today at the Rosebud Ranch, mark the probable source (Fig. 35). An engineering report describes the aqueduct being replaced by a 3.5-inch metal pipe in October of 1887 (Fig. 36) by Chinese and anglo section crews. Water was stored in three tanks and the Athenium. Efforts to drill wells in Terrace proved fruitless as engineering reports filed with the Southern Pacific in 1892 reveal:

“May 5, 1892 - Experimental well sunk 8’ wide by 35’ deep, unsuccessful

June 4, 1892 - Well sunk 3’ wide by 75’ deep, no water

July 1892 - Terminated well efforts.”

Being chiefly dependent upon the railroad, Terrace began to suffer after the rerouting of transcontinental traffic over the Lucin Cutoff. Only three trains a week (down from ten a day) passed through Terrace. Additionally, the maintenance shops were moved to Carlin, Nevada (Carr 1972:12; Tinker 1964:20). Historical accounts indicate that a sweeping fire in the early 20th Century hastened Terrace’s demise. Records vary on the date of the fire: 1900 (Conley 1976:258; Carr 1972:12) and 1907 (Tinker 1964:20). An extensive search of the Box Elder News 1900 to 1908, failed to reveal a report of the fire. Terrace lingered, still having a Justice of the Peace and Constable in January of 1908 (Box Elder News 1908).

Extensive evidence of Terrace remains today. Figure 34 shows the switchyard; Figure 38 the roundhouse; Figure 39, 40 the turntable; Figure 41 the brick building; and Figure 42 the basement or lower floor of a Terrace Hotel. Numerous depressions and foundations locate the businesses, homes, and the Chinese settlement. The cemetery is located east of town on the south side of the track.



A Terrace tombstone

Southern Pacific Company.

Office of *Dir. M. M.*

Terrace, Sep. 5th 1888
 To *N. J. Smith Esq.*
Chgo. Ill. P. M. R.

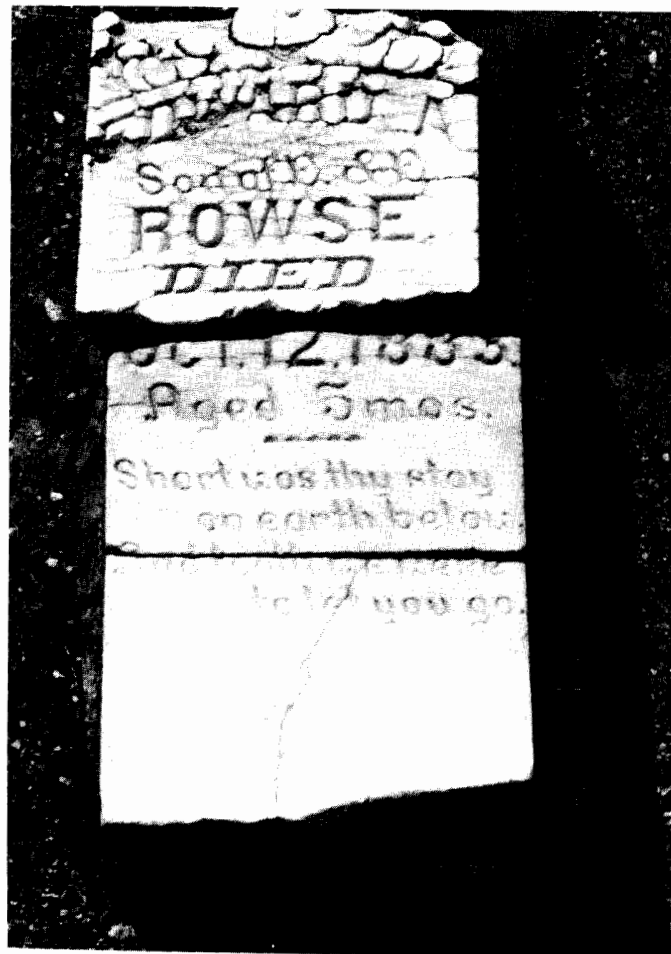
Dear Sir

*Engineer, A. Rye, was
 dismissed from our service, Aug 5, on grounds of
 Profligacy as the cause, made a practice of
 squandering his earnings upon dissolute women
 neglecting to pay his bills, compelling his creditors
 to levy attachments on his wages. He was also in
 the habit of drinking too much intoxicating liquor,
 although I could not call him a drunkard.*

*As an Engineer I considered him undesirable
 in our service Yours Truly*

W. H. Stevenson Acting Mgr

A letter from Terrace, Utah 1888
 (Courtesy of Southern Pacific)



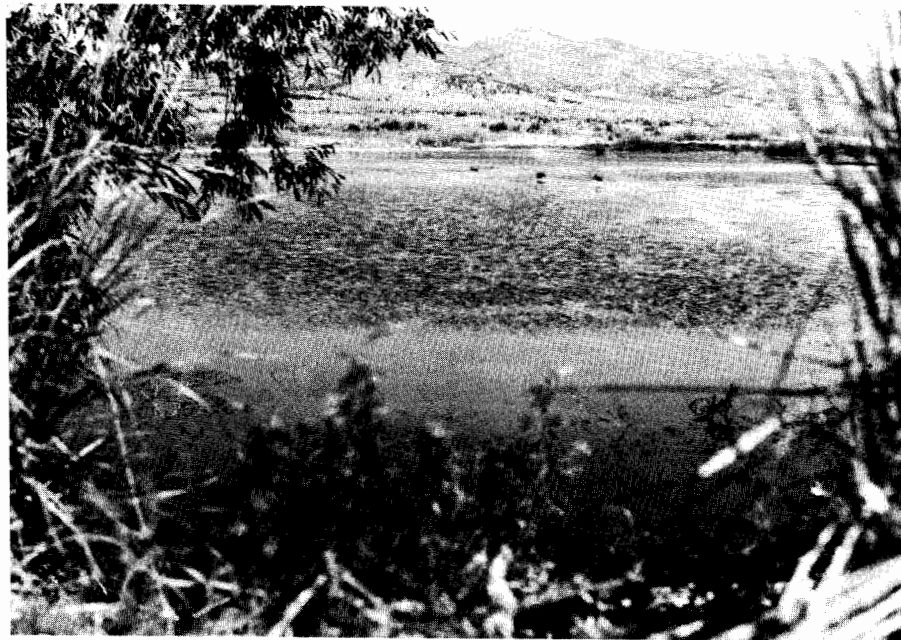
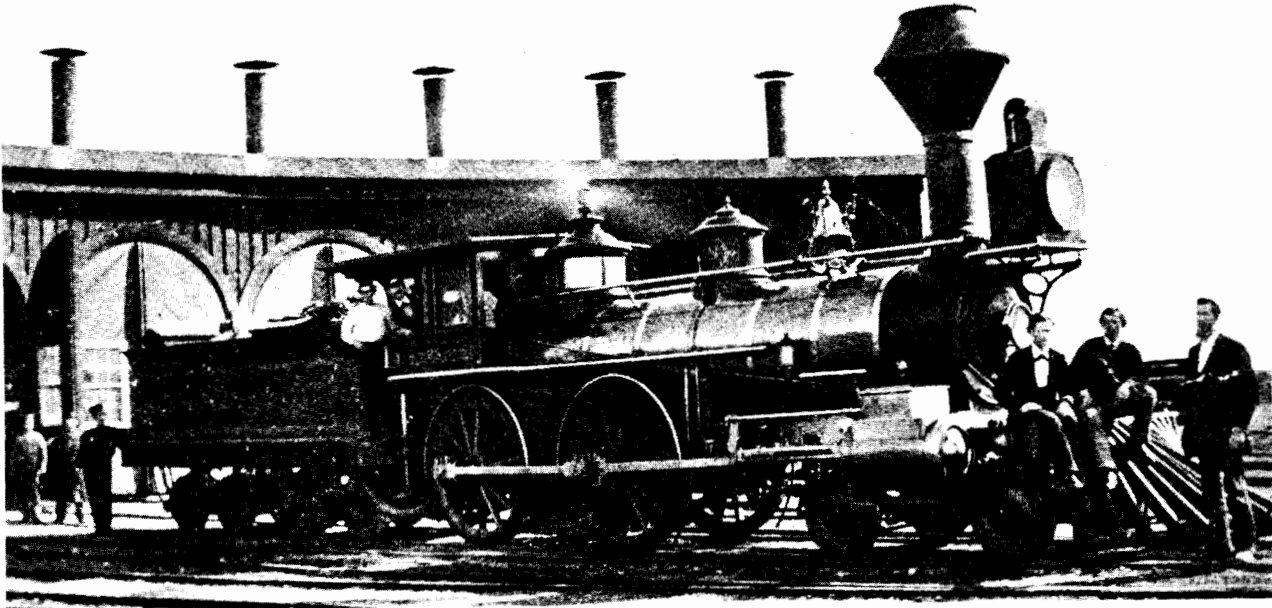


Figure 35: Rosebud reservoir taken from the earthen dam at Rosebud Ranch (BLM photo)



Figure 36: Sections of the water pipeline leading from the reservoir to Terrace can be seen in the desert. Looking southwest towards Terrace Mountain. (BLM photo)



**Figure 37: Locomotive "Gold Run" outside Terrace Roundhouse with master mechanic William McKenzie; J. A. Jacobs, agent and Charles Wright, engineer.
(Courtesy of Utah State Historical Society)**



**Figure 38: Remnant stalls from Terrace Roundhouse
(BLM photo)**



Figure 39: Turntable depression at Terrace
(BLM photo)

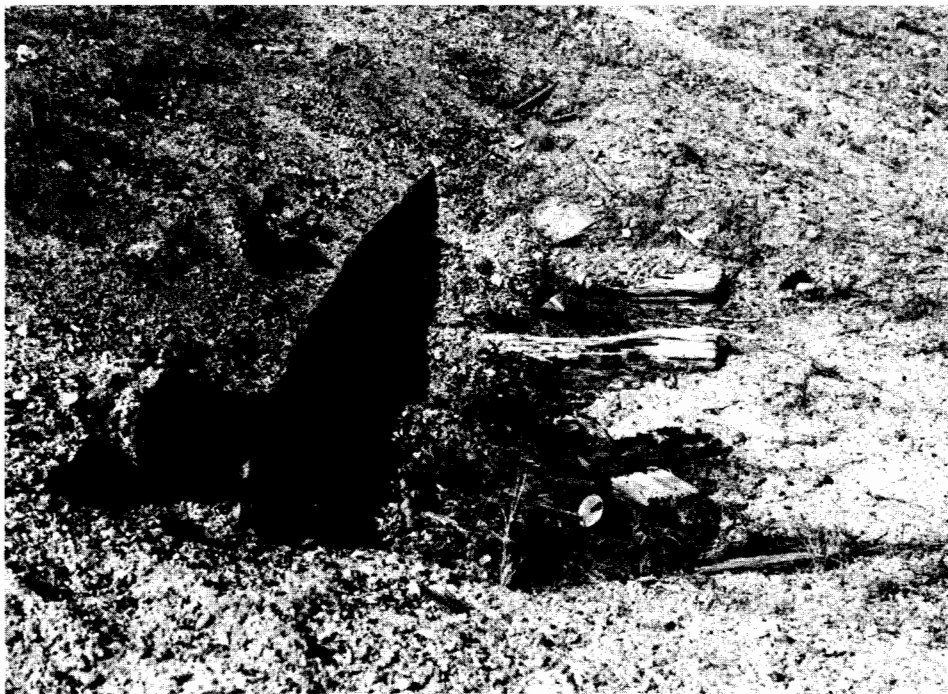


Figure 40: Detail of turntable foundation at Terrace
(BLM photo)



Figure 41: Central Pacific shop & office building
(BLM photo)



Figure 42: Plumbing system of Terrace hotel (BLM photo)

OLD TERRACE

Railroad use: Unknown

703.5 miles from San Francisco

T. 9 N., R. 15W., Sec. 12 NE¼, SLM

A siding one mile east of Terrace corresponds with the notation "Old Terrace" on the engineering profile. Other than this notation, the authors found no other reference to "Old Terrace." With heavy rail traffic in and out of Terrace, it may have been necessary to install a back-up, auxiliary siding to relieve congestion and track blockage. Figure 29 indicates an aqueduct may have terminated in the vicinity of Old Terrace. Possibly a water holding tank existed at the location.

Onsite investigations indicate that Old Terrace was uninhabited and lacked permanent facilities. An enclosure made from pipes laid in concrete posts may mark a single grave or graves. Its construction is identical to a cemetery enclosure at Kelton. No grave markers remain. Artifacts at Old Terrace are scarce except for an occasional glass sherd or piece of metal.



RED DOME

Railroad use: May 30, 1895 - 1907

708.5 miles from San Francisco

T. 9 N., R. 14 W., Sec. 3 SE¼, SLM

The Red Dome siding (Fig. 43) was completed in 1895 to accommodate increased railroad activity and possibly area ranchers. From surface evidence, it appears that no support facilities were constructed. Railroad records indicate that siding maintenance terminated in 1907. The siding takes its name from Red Dome Pass, 16 track miles to the east.



**Figure 43: Red Dome Siding looking east
(BLM photo)**

MATLIN

Railroad use: 1869 - ca. 1904

712.8 miles from San Francisco

T. 10 N., R. 13 W., Sec. 29 SW¼, SLM

Engineering profiles indicate that track laying crews reached the site of Matlin on April 5, 1869. Here a share of the Chinese railroad workers built section facilities and a small Chinese community (Fig. 45, 46). A wye was installed in 1900 and may have replaced a light duty turntable (Fig. 44).

Population records document 15 people living in Matlin in 1870 and 25 in 1876 (Geological Survey 1900 and Rand McNally 1956). Ground evidence and vandalized dugouts reveal many Chinese artifacts attributable to the 19th Century. Completion of the Lucin Cutoff in 1904 prompted the abandonment of Matlin.



Figure 44: Looking east at the Matlin siding with the wye in the foreground (BLM photo)

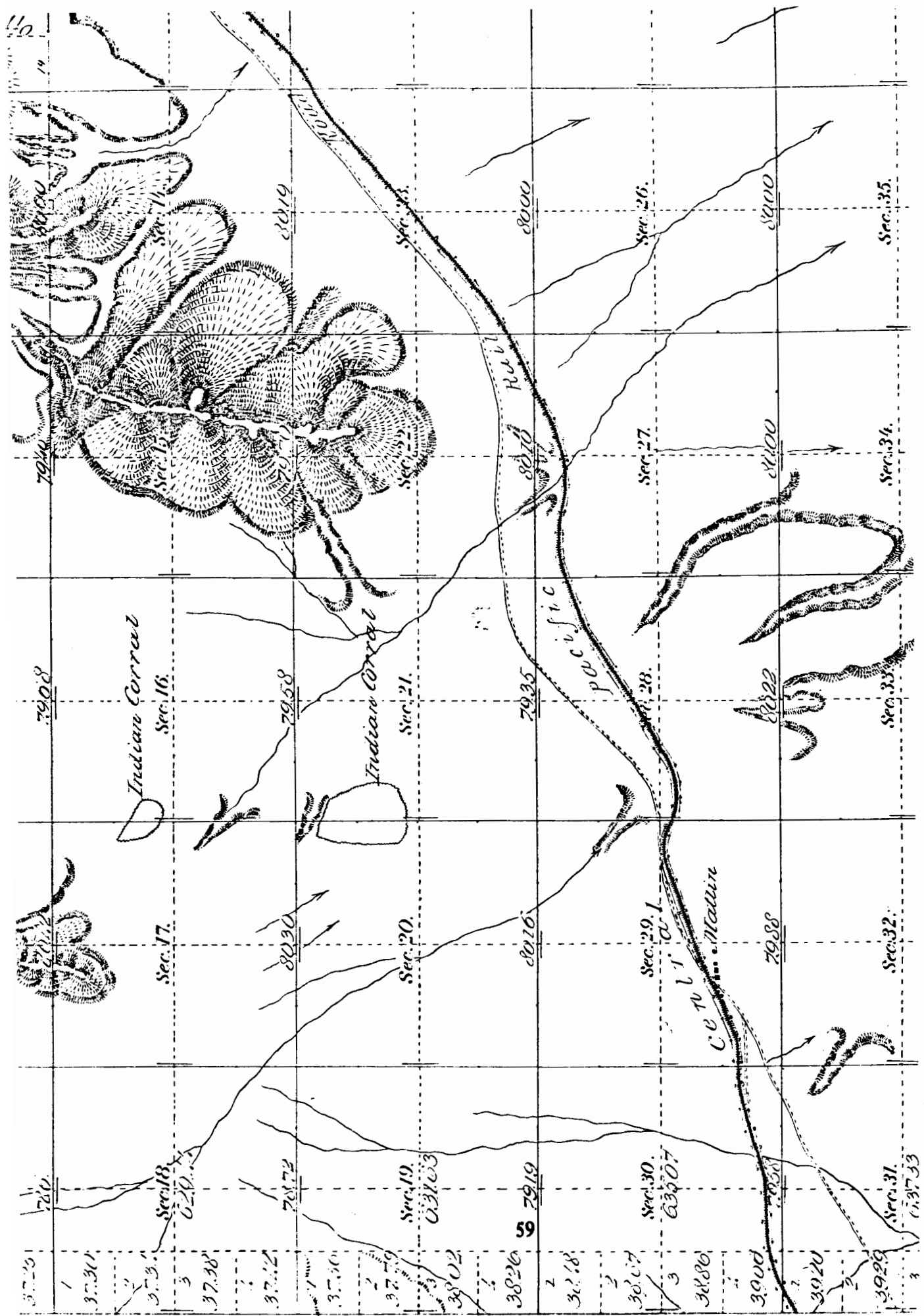


Figure 45: 1873 Cadastral Plat showing Matlin T. 10N., R. 13W.

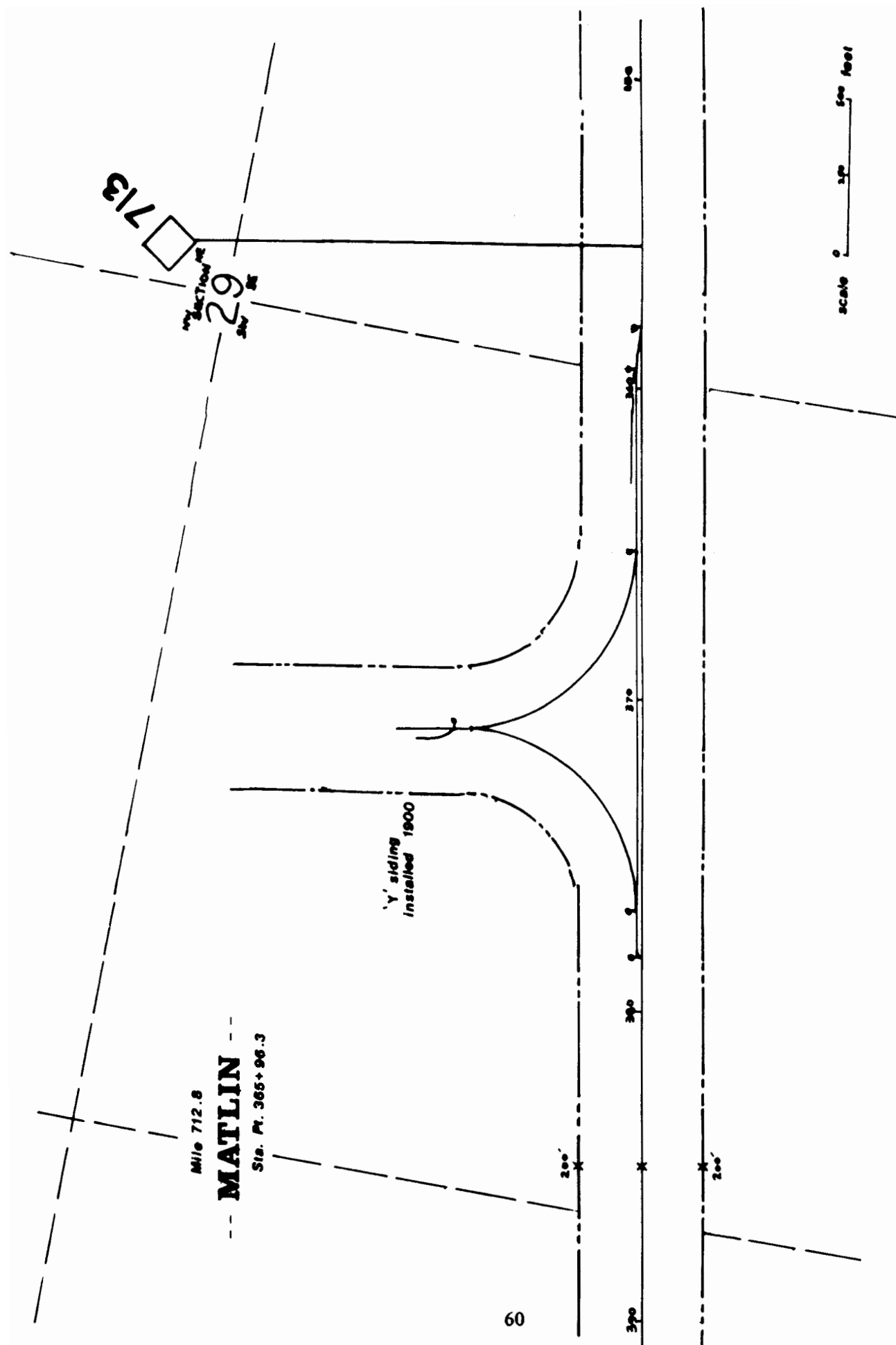


Figure 46: Matlin (compiled from Southern Pacific station plans).

ROMOLA

Railroad use: 1899 - 1906

717.6 miles from San Francisco

T. 10 N., R. 13 W., Sec. 13, SLM

The Romola siding was built in 1899 to accommodate increased rail traffic and local sheep ranchers (Fig. 47). Southern Pacific track plats indicate a loading platform and a train car body were located at Romola. No cultural materials were located during onsite investigations.



Figure 47: Looking west at the siding of Romola
(BLM photo)

GRAVEL PIT AND OMBEY

Gravel Pit - Railroad use: 1869 - ca. 1881

723.6 miles from San Francisco

T. 11 N., R. 12 W., Sec 28 NE¼, SLM

Ombey - Railroad use: ca. 1878 - ca. 1910

722.6 miles from San Francisco

T. 11 N., R. 12 W., Sec. 33 SE¼, SLM

The sites of Gravel Pit and Ombey are not synonymous. Gravel Pit is located approximately one track mile east of Ombey and originally served as a construction camp. An 1869 inventory, (Fig. 15), notes a 16' x 30' section house (Fig. 48) and 10' x 20' kitchen at Gravel Pit. Other facilities included a Chinese house, water tank, and a train car body. Structural and material remains are evident today.



Figure 48: Foundation of a section house at Gravel Pit
(BLM photo)

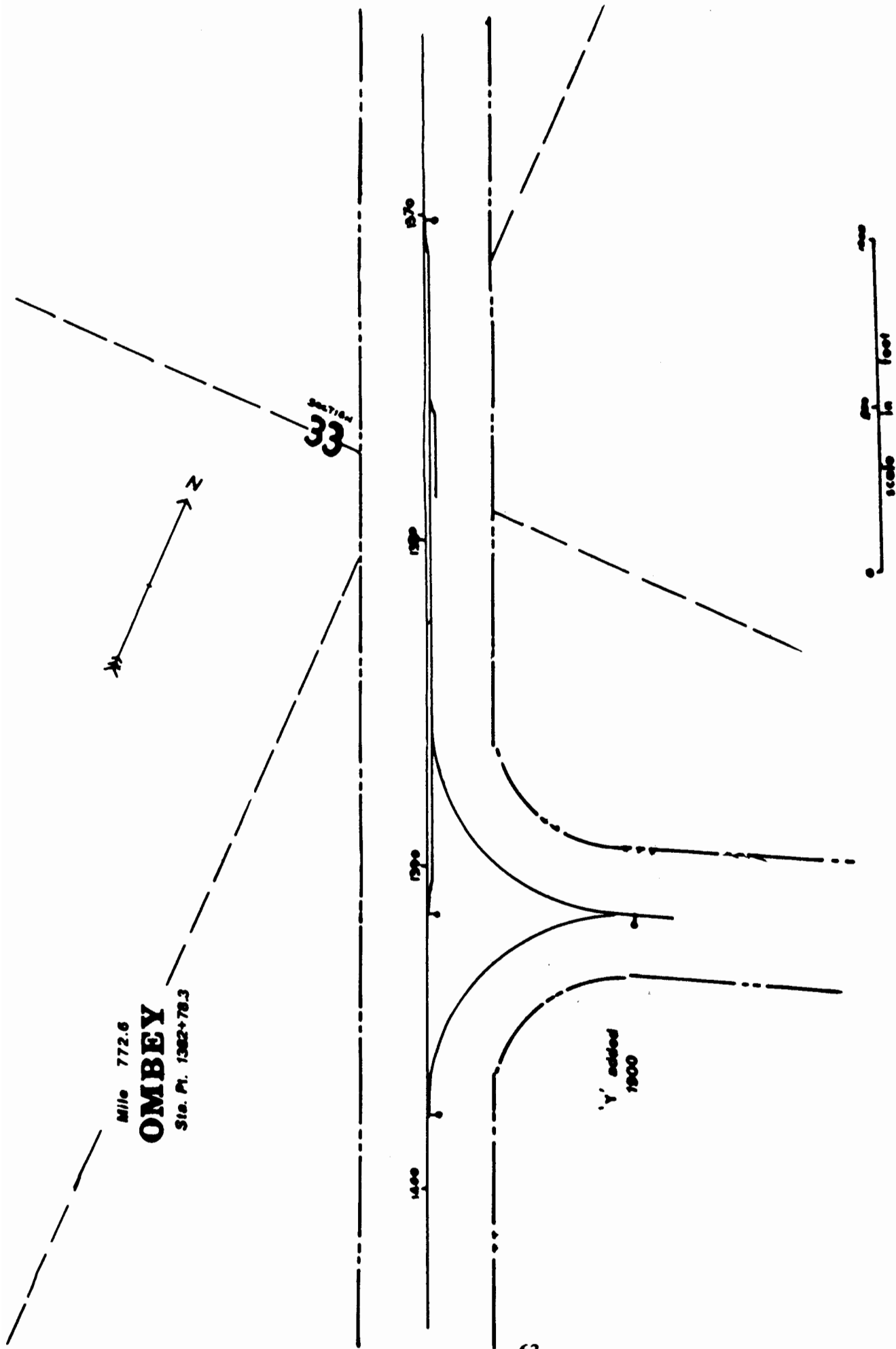


Figure 49: Ombey section station (compiled from Southern Pacific station plans and track plat).

Gravel Pit and Ombey (Continued)

An area one mile west was chosen for the location of the Ombey siding, completed prior to ca. 1879 (Fig. 49, 50). By July 1881, railroad profiles show a section house, tool house, and Chinese bunk - and cookhouses, located at Ombey, suggesting that section facilities at Gravel Pit had been discontinued and moved west. By 1882, Gravel Pit was probably abandoned. Fragments of olive-green ale, cathedral peppersauce, ginger beer, and C. Conrad and Co. Original Budweiser bottles testify to occupation primarily in the 1870's at Gravel Pit (see sketch on next page).

A wye was constructed in 1900 to turn the newer heavier locomotives and Ombey provided freighting services to regional sheep herders. Railroad profiles mark the "Summit of Red Dome Pass" near Ombey. Taro Yagi reports in the Golden Spike Oral History (1969) that four helper locomotives were often necessary to pull freight trains over "Red Dome Hill".

Structural (Fig. 51) and material evidence remain (Fig. 52). Materials observed from recent illegal digging reveal a Chinese occupation.



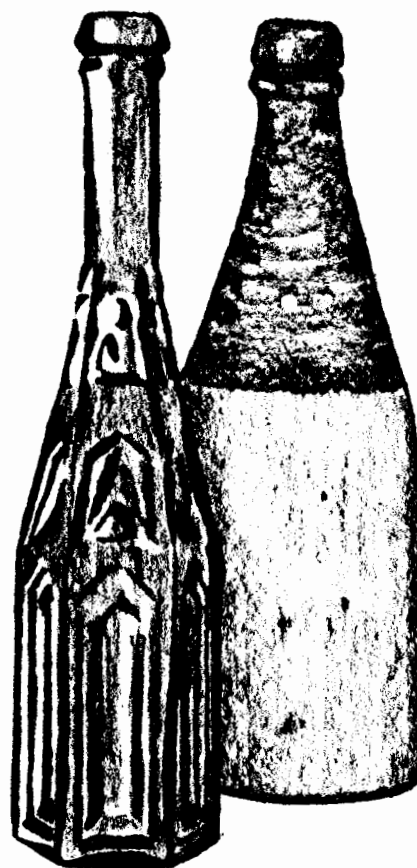
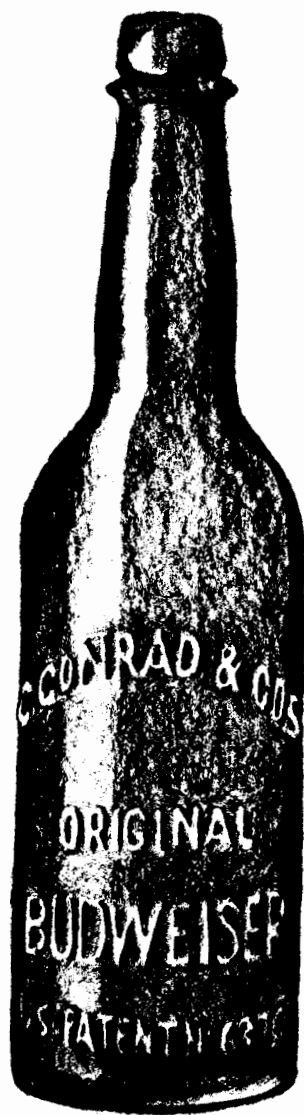
Figure 50: Looking at the Ombey wye siding.
The townsite is located in the distance near the road cut.
(BLM photo)

ORIGINAL

BUDWEISER

(Manufactured

between 1878 - 1883)

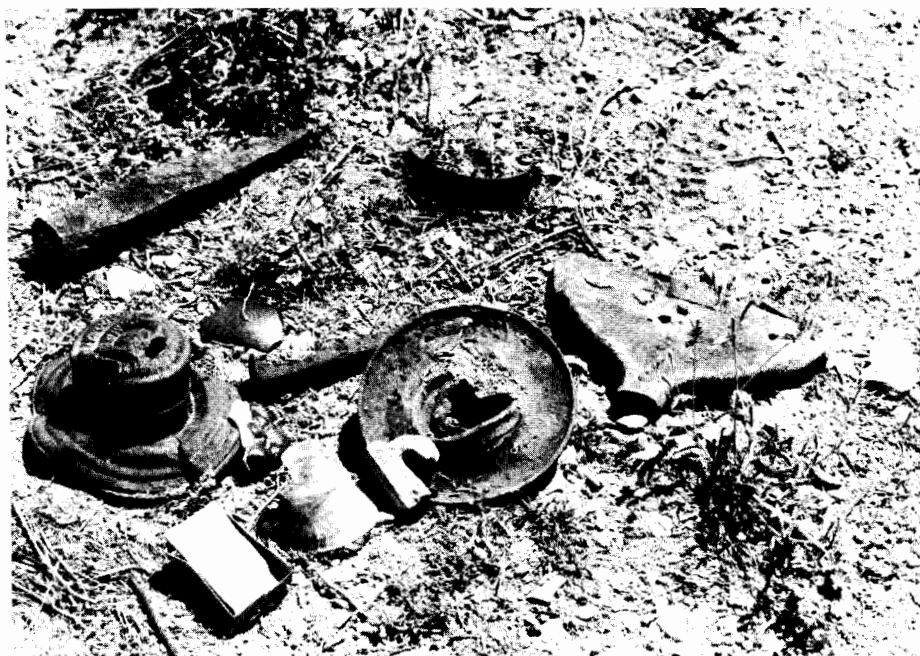


GINGER BEER

CATHEDRAL PEPPERSAUCE



**Figure 51: Chinese section of Ombey today.
(BLM photo)**



**Figure 52: Ombey surface artifacts
(BLM photo)**

PEPLIN

Railroad use: 1888 - ?

727.3 miles from San Francisco

T. 11 N., R. 12 W., Sec. 24, NW¼, SLM

Central Pacific track layers reached this point on April 9, 1869, but the earliest documentation of use is in 1888. Peplin consisted of a siding, a small bumper spur (Fig. 53), a train car body and a loading platform. Ground evidence suggests a small, temporary occupation.



Figure 53: Peplin siding sits in a small cut.
Note remnants of railroad ties at base of cut.
The Great Salt Lake is in the distance.
(BLM photo)

ZIAS

Railroad use: 1902 - 1906

731.1 miles from San Francisco

T. 11 N., R. 11 W., Sec. 6 NE¼, SLM

Zias (Fig. 54) was a single track siding with little railroad documentation. The siding may have served area ranchers. A small refuse dump was located on site.



Figure 54: Looking west at Zias. The siding is on the right.
(BLM photo)

KELTON
(or Indian Creek)

Railroad use: 1869 - 1942

734.1 miles from San Francisco

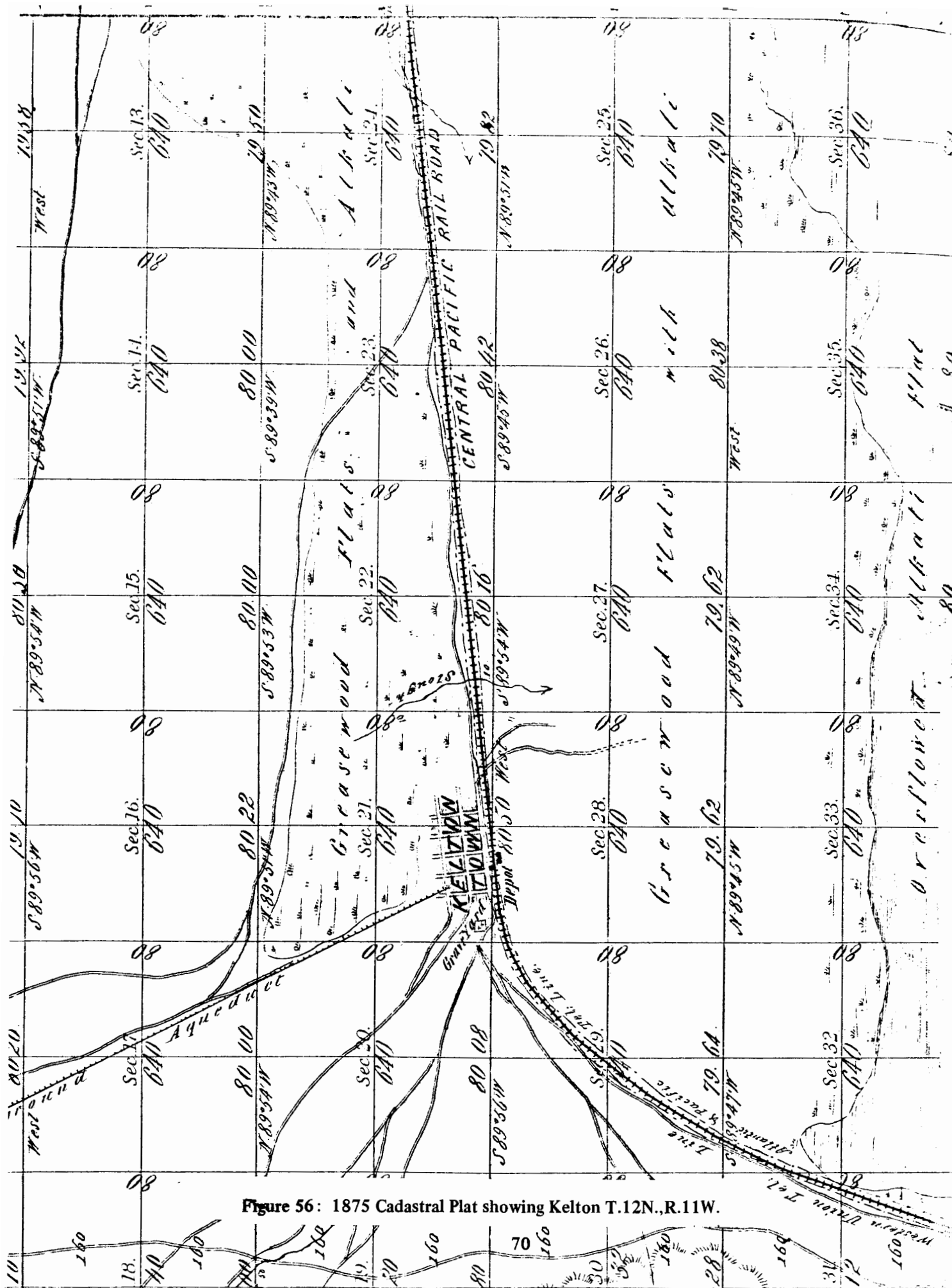
T. 12 N., R. 11 W., Sec. 21 SW¹/₄, SLM

Kelton served as a section station and major shipping and travel connection to the mineral rich mountains and open rangeland of the Northwest (Fig. 56). Kelton was the southern terminus of the Utah, Idaho, and Oregon Stage Company and a station on the Overland Mail route. In a typical year during the 1870s, six million pounds of supplies were loaded from trains on to wagons in exchange for wool and furs from the intermountain north (Shearer 1885:185).

A story of a “Daring Stage Robbery” near Kelton, reported in 1870, follows.



**Figure 55: The Kelton cemetery today
(BLM photo)**



DARING STAGE ROBBERY

"Come down" and he did come down very meekly and took the position assigned him. This imperative command was given to the driver by one of the masked robbers, who stopped the incoming stagecoach last night when the vehicle was within eight miles of Kelton, Utah.

There were eight passengers on board the coach. One of the robbers went to the head of the team and took possession of the lead horses. The other three went through the travelers, some of whom were ladies, and disposed them of all their money, and other valuables, which occupied about two hours and a half. The daring thieves got about \$2,500 in cash, four watches, and other jewelry. The avaricious, pernicious wretches even took from the persons of the passengers their shirt studs and buttons. They then broke open the traveling trunks and took from them whatever was of sufficient value or convenient to get off with.

After the rascals had plundered the people of all they could, they took off the leaders from the team, unharnessed them, and struck out with them for some place of safe retreat.

We understand they did not interfere with any of Uncle Sam's mail bags: because they had not the time to go through them. Before they left, they returned the watch they took from the stage driver and gave to each of the travelers, one dollar to buy a supper when they reached Kelton."

(Ogden Daily Herald, August 1, 1870).



Figure 57: Tombstone in the Kelton cemetery
(BLM photo)

In its early years, Kelton had a two-story hotel, a post office, and several saloons, stores, and homes (Carr 1972:11). A directory for 1880 listed the following businesses and proprietors:

Blacksmith	Barnes, A.E.
General Merchandise, Forwarding & Commission . . .	Ellsworth, H.M. & Co.
General Merchandise	Howell, Reese
Liquors	Johnson, R.P.
General Merchandise, Forwarding & Commission	Lewis and Company
Drugs and Notions, Books, Stationary, Agent for Utah, Idaho, and Oregon Stage Company	Riley, W.T.
Hotel.	Rosevear, Joe
Salt Works.	Schnobacker & Barnes
Agricultural Implements	Sebree, Ferris, & Holt
Hotel.	Taylor & Hoynes
Livery Stables	Taylor, G.H.
Liquors	Toyer, C.W.
(McKenney 1880)	

Some business buildings and railroad facilities from the ca. 1880s, are shown in Figure 59. Structures associated with the railroad included the depot (Fig. 60), a turntable, engine house, water tank and pumphouse, section house (Fig. 62), and such ancillary facilities as rail spurs and sidings. By 1900, a wye was constructed west of town to facilitate the handling of the new, heavier engines. Water for Kelton and surrounding stations was drawn via redwood pipeline from the foot of the Raft River Mountains, seven miles north.

Population figures for Kelton include:

1870 -----	101 (Geological Survey 1900)
1876 -----	101 (Rand McNally 1956)
1879 -----	200 (Cram 1879)
1883 -----	130 (Tulliges 1883 Reg. voters only)
1924 -----	30 (Polk 1925)
1937 -----	47 (Carr 1972)

Kelton's prosperity suffered with the building of the Lucin Cutoff and the Utah Northern Railroad; the latter soon monopolized the northwest freight trade. In 1937, Kelton still served

as a shipping point for local trade from Snowville, Yost, and Park Valley and supported a post office, store, telegraph office, and hotel (Carr 1972:11).

Longevity characterizes Kelton, apparent today in ghostly remnants of a town's persistent will to survive. Only recently did the last remaining tree die, located at the site of the section foreman's home (Fig. 63). The home, now moved, is located on the Morgan Ranch north of Kelton (Fig. 62). Ghostly columns arise from the cemetery (Figs. 55, 57, 58) and the sites of the depot (Figs. 60, 61), the Conant Brothers Hotel (Figs. 64, 65), and other features and structures remain. Occasionally, railroad buffs, hunters, and recreationists visit the site today.

Some Kelton stories and local gossip are reprinted from the Box Elder Report in Appendix II.

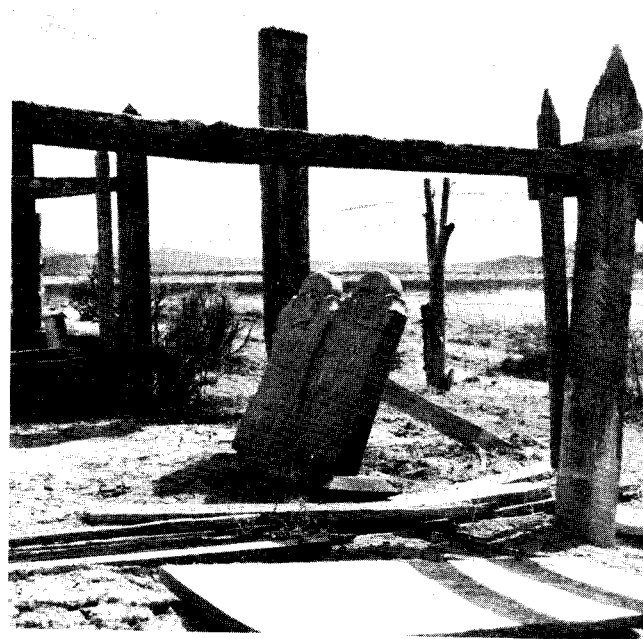


Figure 58: Tombstone in the Kelton cemetery today
(BLM photo)



Figure 60: The Kelton Depot circa 1905
(courtesy of Norrine Carter, Park Valley, Utah)



Figure 61: The site of the Kelton Depot as it looks today.
(BLM photo)

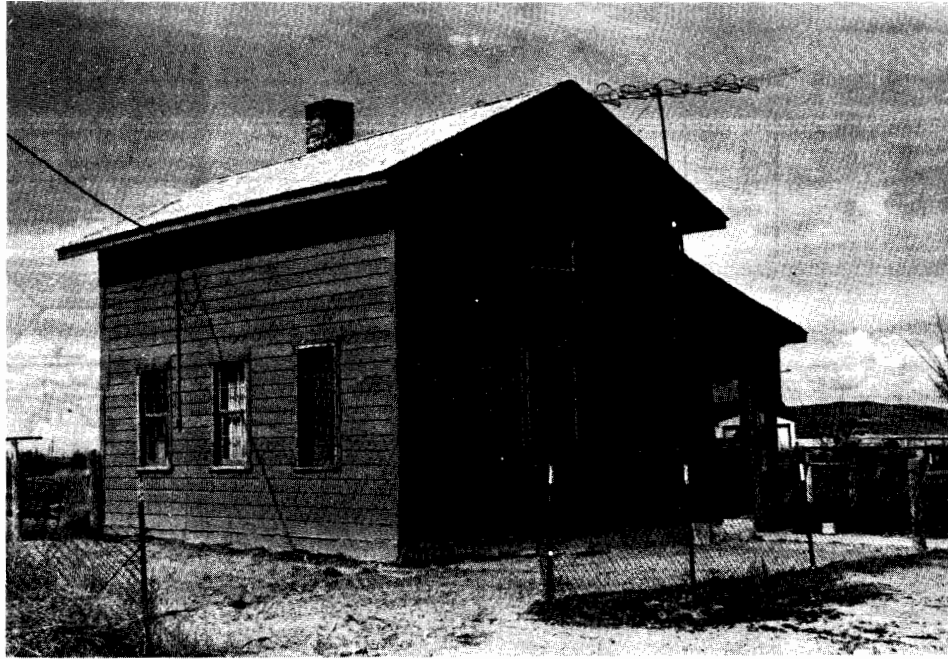


Figure 62: The section foremans house was moved to a ranch a few miles north of Kelton.
(BLM photo)



Figure 63: The section foremans house stood near the dead tree.
A stock reservoir is located in the foreground.
(BLM photo)



Figure 64: The Kelton Hotel circa 1905
(courtesy of Norrine Carter, Park Valley, Utah).



Figure 65: Railroad maps and artifacts confirmed the location of the Kelton Hotel.
(BLM photo)

ELINOR

Railroad use: 1902 - 1907

739.1 miles from San Francisco

T. 12 N., R. 10 W., Sec. 20 NW¼, SLM

Elinor (often spelled Elenor in railroad records) was apparently uninhabited. The siding was 2,300 feet long (Fig. 66) and was constructed early in this century to accommodate the increased rail traffic. Its use as a freight outlet is suspected but unsubstantiated.



Figure 66: The siding at Elinor
(BLM photo)

SECO

Railroad use: June 1873 - October 12, 1901

743.0 miles from San Francisco

T. 12 N., R. 10 W., Sec. 26 SW¼, SLM

The Seco townsite was established in June 1873 as a section station to accommodate the moving of facilities from Ten-Mile which is 3.6 miles east. Research did not reveal why a siding (Fig. 67) was built 1.5 miles west of the Seco townsite. The siding, unpretentious and apparently lacking any ancillary features or structures, was completed in September 1872.

The work crews and inhabitants of Seco were Chinese. Although no population figures are available, statistics comparable to Ombey or Bovine are probable, about 25 inhabitants maximum at any one time.

Vandalized Chinese dugouts (Fig. 68), a well, foundations, and fragments of Chinese ceramics and glass (Fig. 69) are evident today.



Figure 67: The Seco siding occurs on the right side of the photograph, north of the main railroad grade.
(BLM photo)



Figure 68: The Seco townsite today.
A vandalized dugout occurs in the foreground
(BLM photo).



Figure 69: Artifacts from Seco include a rice bowl with the Chinese happiness pattern and tiger whiskey bottle fragments. Digging for artifacts and collecting surface artifacts like these is illegal.
(BLM photo)

NELLA

Railroad use: 1902 - 1906, 1916 - ?

743.9 miles from San Francisco

T. 12 N., R. 10 W., Sec. 25 SE¼, SLM

Nella was an uninhabited siding built in 1902 for service to local ranchers (Fig. 70). The siding was removed by the railroad in 1906, and relaid again in 1916. In 1917, a train car body and freight platform were present. Investigations located no cultural features or materials.



Figure 70: The siding at Nella today can be seen on the left (north) of the main railroad grade.
(BLM photo)

TEN-MILE

Railroad use: 1869 - 1873

746.6 miles from San Francisco

T. 12 N., R. 10 W., Sec. 33 SW $\frac{1}{4}$, SLM

Ten-Mile was a section station established in 1869 (Fig. 15). The name is derived from the distance west from the original Lake section buildings. The closest siding was two miles east at Monument. Railroad profiles locate a section house, train car body, and water tank at Ten-Mile. Railroad documents indicate that the section facilities at Ten-Mile were moved to the Seco townsite in 1873.

After 1900, with Seco and Ten-Mile abandoned, locals and newspapers often referred to both areas and possibly Nella as Ten-Mile.

Small amounts of disturbed soil and glass are evident today (Fig. 71).



Figure 71: The section facilities known as Ten-Mile were built here in 1869.
In 1873 they were moved to Seco
(BLM photo).

MONUMENT

Railroad use: 1869 - 1942

748.6 miles from San Francisco

T. 11 N., R. 9 W., Sec. 3 SE¼, SLM

Contrary to Shearer (1885:185), who describes Monument as “a mere side track and Y for convenience of the (rail) road,” existence here depended upon the Desert Salt Works. The rail spur to the plant, illustrated on the 1872 cadastral plat (Fig. 72), fails to show the wye. Noted by Shearer in 1885, the wye probably was installed ca. 1880. Rand McNally (1956) accounted for at least 25 people in Monument in 1876.

Monument Rock (from which the town was named), was submerged in the waters of the Great Salt Lake during the 19th century (Fig. 73). An account from the Pacific Tourist Guide attempts to console the weary desert passenger.

"When the strong south wind blows, the waves, dashing against the rocks on shore, and the rolling white caps in the distance, form a beautiful view, which the tourist after passing the dreary waste, will appreciate,"

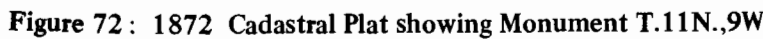
(Shearer, 1885:185)

It is uncertain when the plant closed, but in later years Monument served as a freight siding for regional ranchers.

Today, a stone foundation of four rooms (Fig. 74), piles of lumber, and a remnant pattern of canals (Fig. 75) mark the site of the Salt Works. The area today is disturbed by recreational vehicle use and illegal artifact collecting. Discrete remains of the railroad era are difficult to identify.



F f F f D d E e C c B b A a





PALACE-CAR LIFE ON THE PACIFIC RAILROAD.

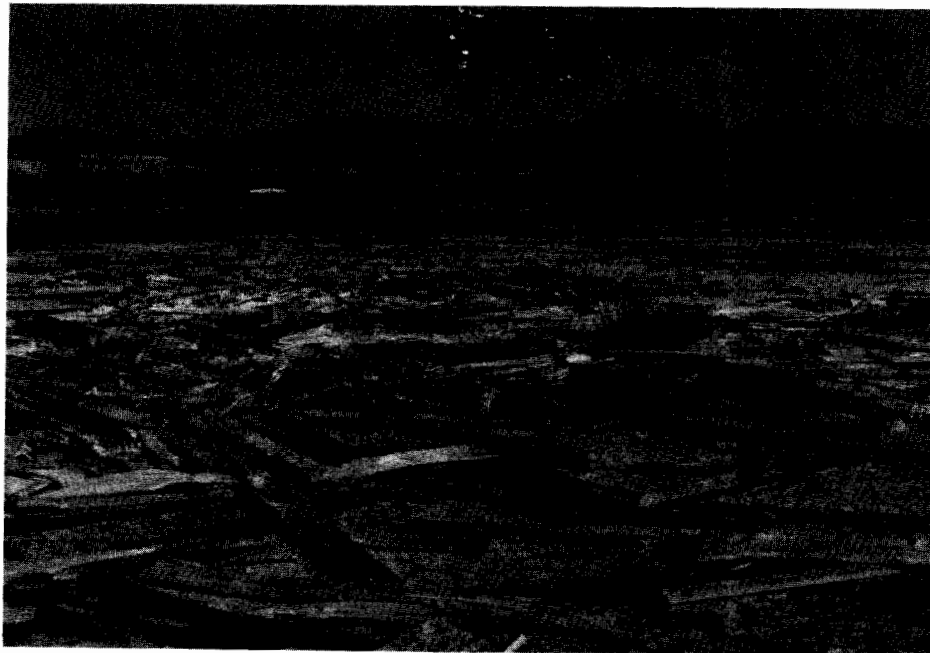
(Overleaf from Shearer 1885)



Figure 73 : The locomotive "Jupiter" at Monument Point in May, 1869 (Southern Pacific, Alfred A. Hart Photograph).



**Figure 74: The largest structure remaining from the Desert Salt Works plant near Monument.
(BLM photo)**



**Figure 75: Looking west over remnants of the Desert Salt Works toward Monument Rock.
(BLM photo)**

KOSMO

West Kosmo - Railroad use: September 1912 - 1942?

751.6 miles from San Francisco

T. 11 N., R. 8 W., Sec. 6 NW $\frac{1}{4}$ and NE $\frac{1}{4}$, SLM

East Kosmo - Railroad use: October 1901 - April 4, 1906

752.1 miles from San Francisco

T. 11 N., R. 8 W., Sec. 5 NW $\frac{1}{4}$, SLM

Two sidings, approximately one-half mile apart, were constructed at Kosmo. Kosmo West (siding) was built in 1912 in conjunction with potash activities and the original Kosmo East (siding), constructed in 1901, served area ranchers.

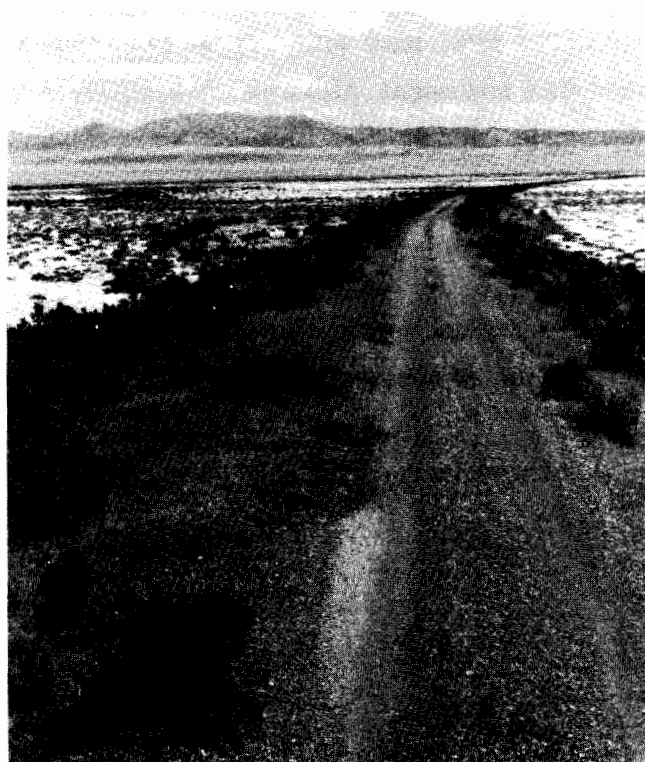
Potash, used in the manufacture of gunpowder, had been chiefly supplied by Germany. With the advent of World War I, potash became difficult to acquire. The Salt Lake Potash Company responded to the need by building ponds, canals (Fig. 76), a rail spur, and processing station at West Kosmo. Three bunkhouses, a cookhouse, garage, stock corral, general store, blacksmith shop, and coal house were constructed and a train car body served as the depot. In 1924, there were 200 people in Kosmo (Utah Gazetteer 1925). Spellings include Kosmos (Rand McNally: 1956) and Cosmo (Cram: 1908).

The original Kosmo (East) was constructed at the turn of the century to support the growing number of ranchers in the region (Fig. 77).

Although no cultural materials were observed at East Kosmo, substantial evidence remains at West Ksomo. Included are concrete foundations and canals associated with the potash recovery facility.



**Figure 76: Remains of canals associated with Salt Lake Potash Company facilities at West Kosmo.
(BLM photo)**



**Figure 77: The siding at East Kosmo looking east towards the Promontory Mountains.
(BLM photo)**

LAKE

West Lake - Railroad use: ca. 1877 - ca. 1910

755.6 miles from San Francisco

T. 11 N., R. 8 W., Sec. 11 NW¼, SLM

East Lake - Railroad use: 1869 - ca. 1890

756.6 miles from San Francisco

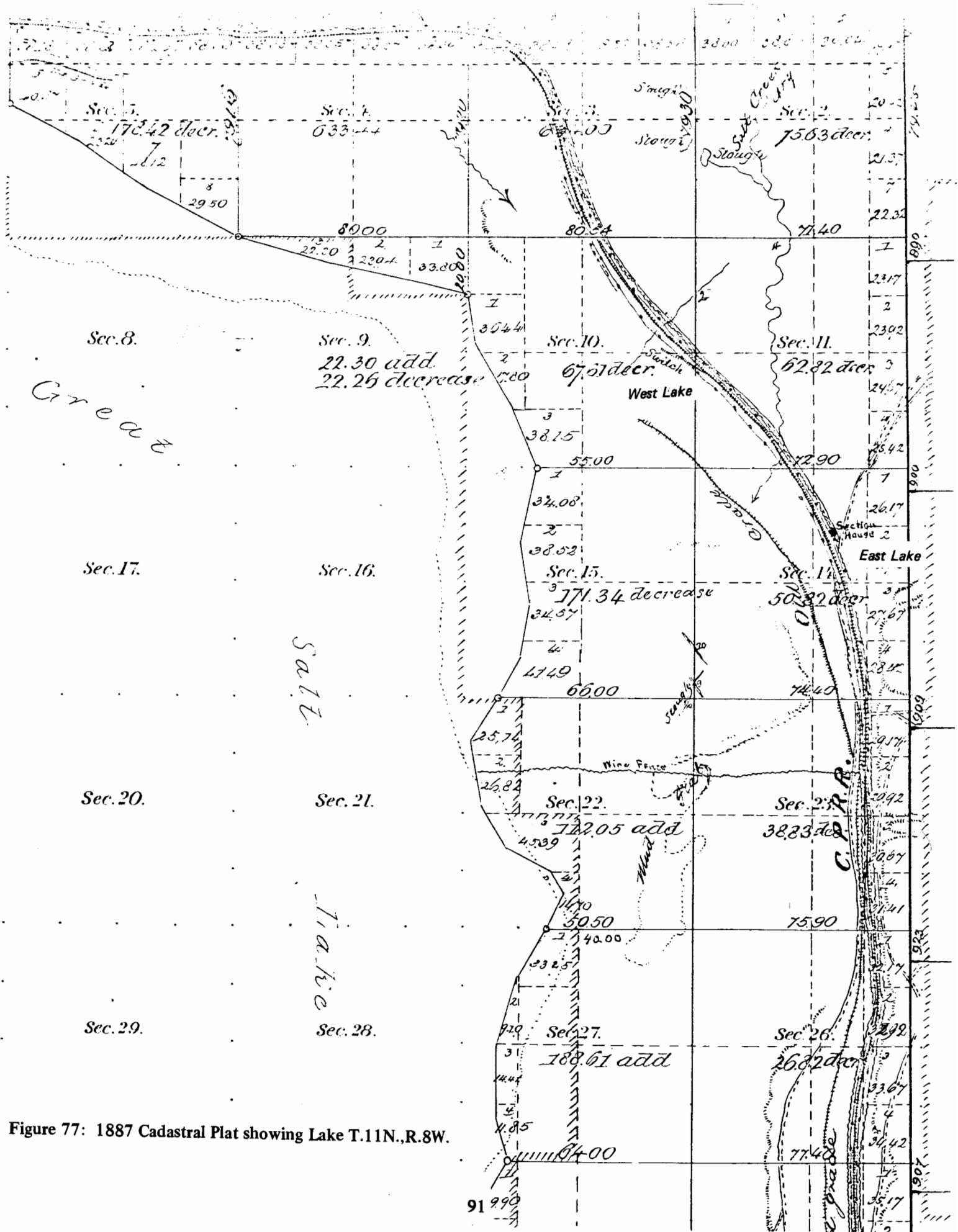
T. 11 N., R. 8 W., Sec. 14 NE¼, SLM

Both areas were used and occupied simultaneously. East Lake contained the section maintenance facilities, documented by the 1887 cadastral record (Fig. 78), and West Lake possessed a siding and wye built in February 1877 and 1899 (Fig. 79). Although one mile apart, both were inhabited by Chinese, as verified by onsite investigations. During the respective years 1870, 1876, and 1879, populations of 17 (Geological Survey 1900), 25 (Rand McNally 1956), and 100 (Cram 1879) inhabited these locations. The census for 1879 may have included the Chinese, often ignored at census time.

A marsh separates the two Lake settlements today. Mesic conditions prevailing in the 19th century may have required dual settlement. Although on sand/clay dunes above the marsh, both settlements lacked suitable building sites. Dugouts for example, a preferred Chinese shelter, may have been flooded out. Conditions at West Lake are so wet today, that the wye is barely visible (Fig. 80).

At East Lake, field investigations found evidence for a substantial Chinese community (Fig. 81). Time-sensitive artifacts confirm occupation during the 1870s and 1880s.

At West Lake, dugouts and a brick walkway remain (Fig. 82).



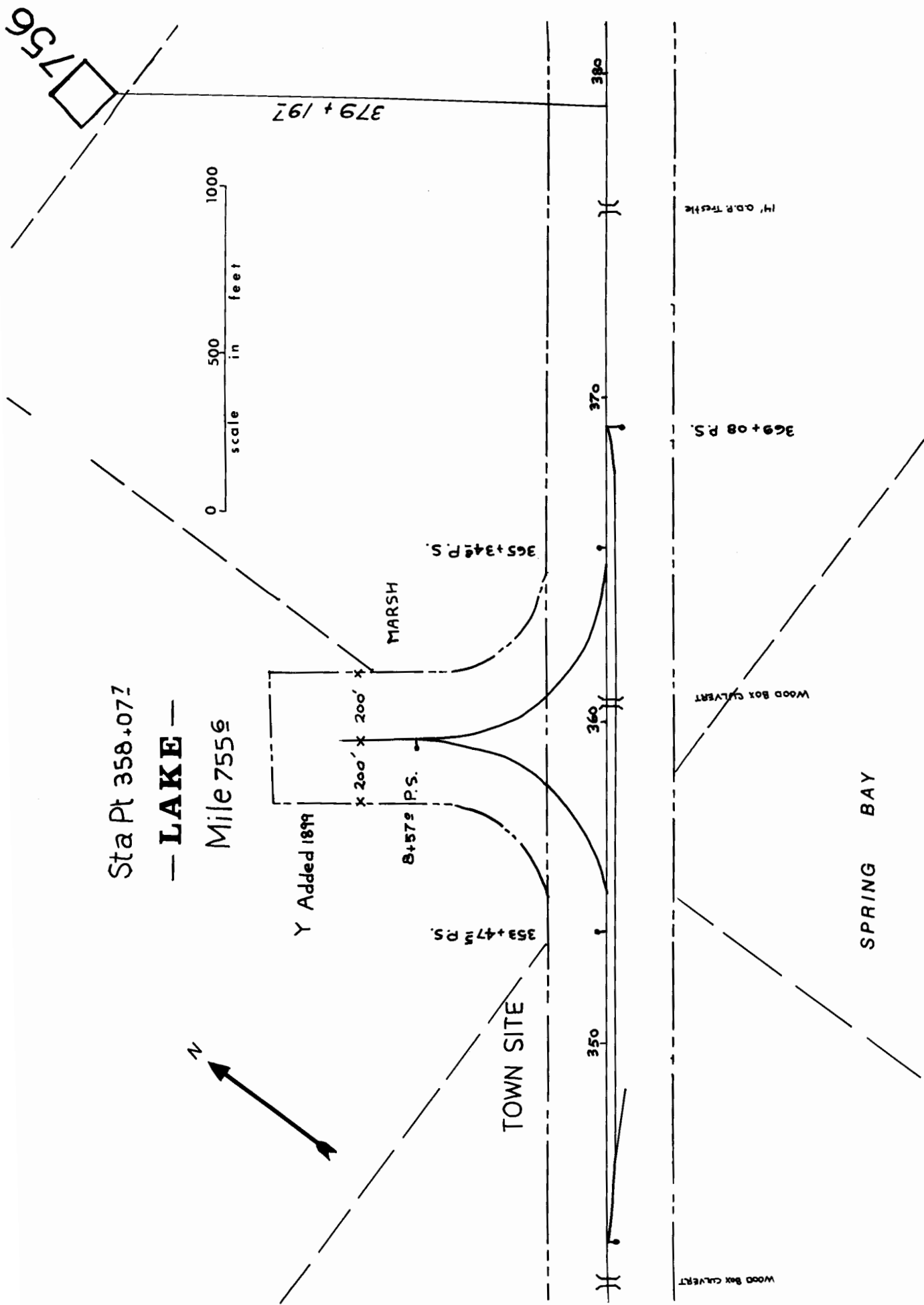
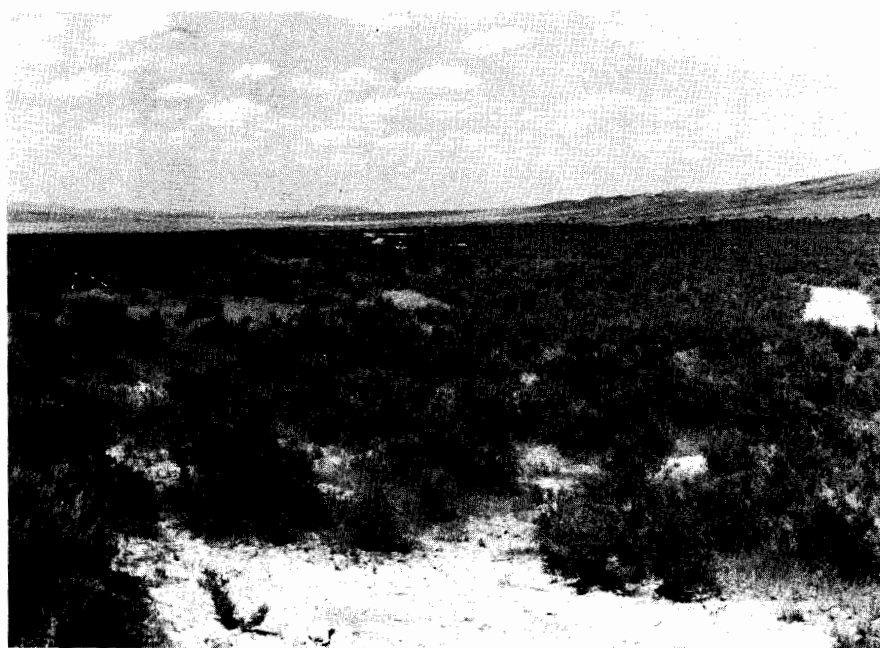


Figure 79 : Lake section station (compiled from Southern Pacific station plans and track plats).



**Figure 80: The east arm of the wye siding at Lake Station is in a marsh environment.
(BLM photo)**



**Figure 81: The cleared area in the foreground and grass covered humps on the left
are remnants of the dugouts and section facilities at East Lake.
(BLM photo)**



**Figure 82: The remains of a stone walkway at West Lake Station.
(BLM photo)**

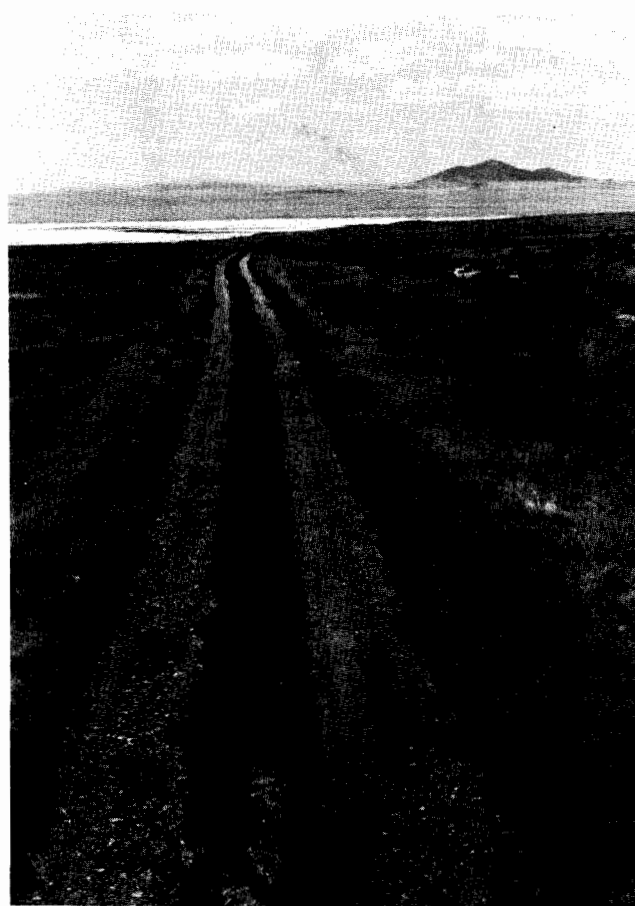
METATAURUS

Railroad use: 1898 - January 9, 1909

760.5 miles from San Francisco

T. 10 N., R. 8 W., Sec. 1 NE¼, SLM

Railroad documents date the installation and use of the Metataurus siding, however, structural facilities or cultural materials were not found (Fig. 83).



**Figure 83: The siding of Metataurus looking toward the northwest.
The siding on the right of this photo is obscured by grass.
(BLM photo)**

CENTRE

Railroad use: March 1879 - 1890

762.7 miles from San Francisco

T. 10 N., R. 7 W., Sec. 7 SW¹/₄, SLM

Information on the Centre siding is limited to ambiguous notations amending Southern Pacific Railroad survey plats and profiles. An onsite investigation confirmed the location (Fig. 84). No cultural material was found.



**Figure 84: The siding (to the left side of photo) at Centre looking towards the east.
(BLM photo)**

ROZEL

Railroad use: 1869 - 1942

765.0 miles from San Francisco

T. 10 N., R. 7 W., Sec. 16 SE¼, SLM

The site of Rozel was christened Victory on April 30, 1869 when Strobridge's workers rested for lunch after laying six miles of track during the famous "ten-mile race" (Kraus 1969B:252). In 1869, a siding was built (Figs. 85, 86). The date for installation of a rail spur is unknown, but its removal in January 1893 is documented in a railroad engineering report.

Rozel is an "unimportant station, where trains meet and pass; but passenger trains do not stop unless signaled" (Shearer 1885:184). Contrary to Shearer and his travel guide, Rozel functioned as an important stop for trains bound for Promontory Summit, eight miles east. "Helper" engines, stationed in Rozel, assisted freight-laden trains up the Promontory Mountains (Golden Spike Oral History 1969).

Railroad structures included a section house, train car body, bunkhouse, cookhouse, and water tank. Local informants indicated the presence of a hotel in the early 20th century. This information is unsubstantiated. Census figures indicate a population of 25 people in 1870 (Geological Survey 1900) and 1876 (Rand McNally 1956).

Water was obtained from an artesian well via a pipeline from the vicinity of Antelope Springs (about eight miles to the southeast). An original redwood pipe laid in 1874 was replaced by a three-inch pipe in 1883. Railroad documentation of 1895 indicates that a spur, from an adjacent spring, boosted the total flow to 600 gallons per hour. A redwood holding tank (18 feet in diameter by 14 feet high within a 23-foot square housing) on a timber tower, was still used in 1917. It was replaced by a steel tower and tank on a concrete foundation. The only railroad facilities remaining in 1917 were the water tower, a freight platform, tent platform, and bake oven.

The water tower footings, a fenced yard, and a collapsed wooden building mark Rozel. East of the site, ranch buildings and an associated corral utilize the artesian water.

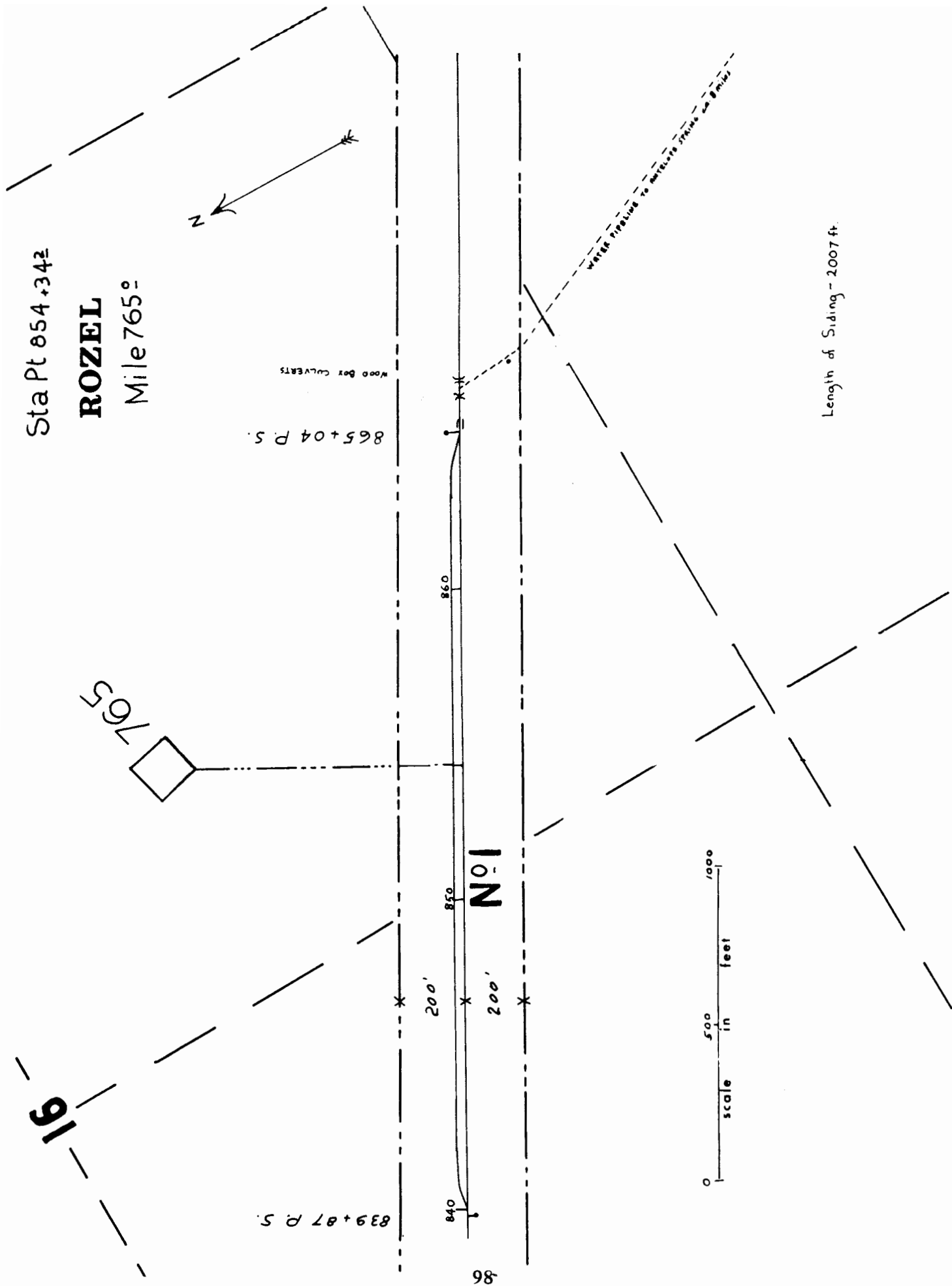


Figure 85: Rozel section station (compiled from Southern Pacific station plans and track plats).

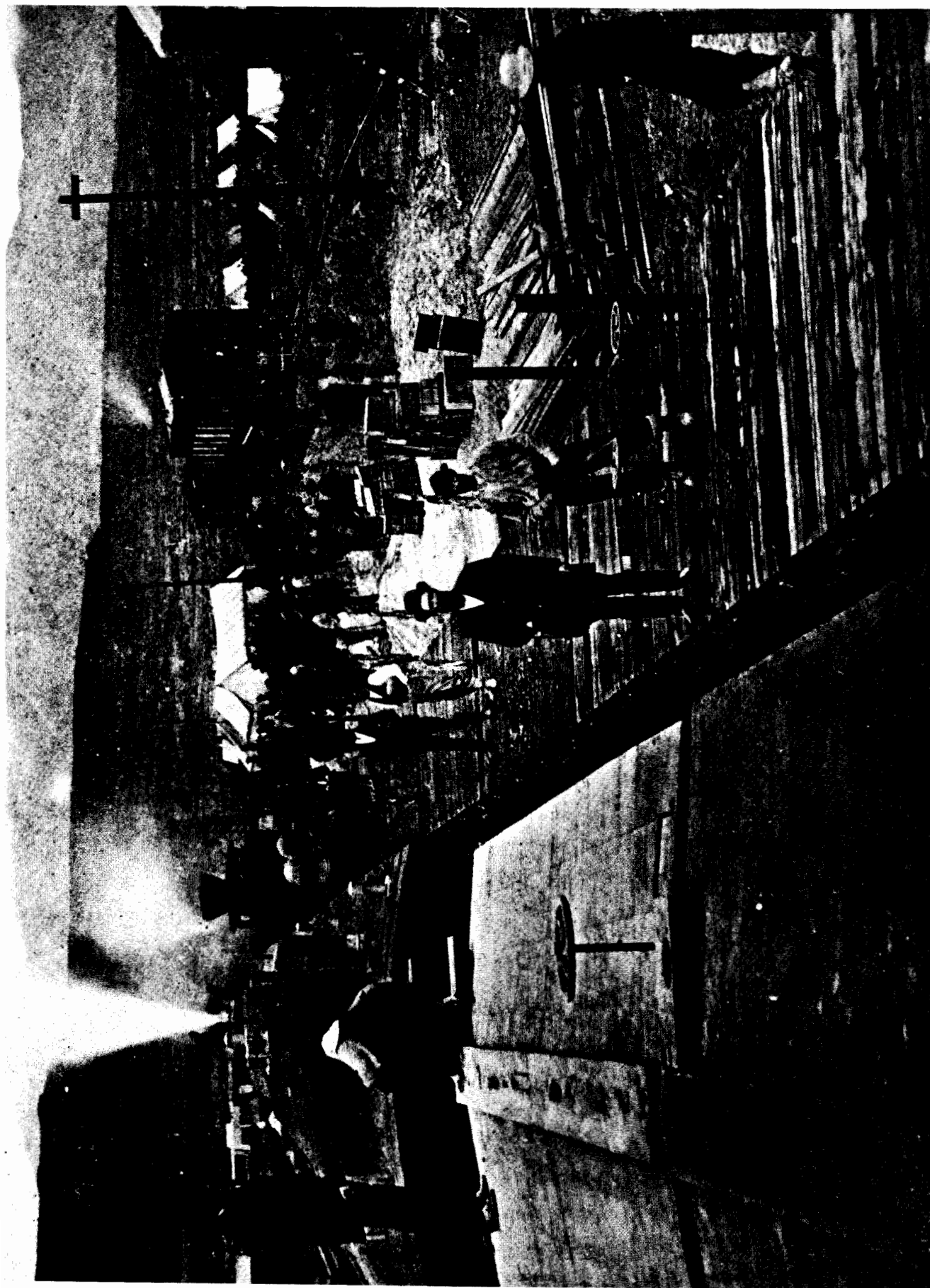


Figure 86 : Rozel in May of 1869 (Southern Pacific, Alfred A. Hart Photograph).

PROMONTORY

Railroad use: 1869 - 1942

772.9 miles from San Francisco

T. 10 N., R. 8 W., Sec. 8 NE¼, SLM

On May 10, 1869, the rails were joined at Promontory to create the first transcontinental railroad. The site is preserved by the National Park Service at Golden Spike National Historic Site.

Briefly, besides a siding, early railroad facilities at Promontory included a wye (used prior to installation of the turntable in late 1869), a foreman's house and section hands' housing, coal shed, water tower, tool house, and depot (Fig. 87). Being a local center for shipping of wheat and livestock, until about 1942, several businesses and homes were constructed including the Houghton Store and the school house. During the decades of use three school houses were built, two being destroyed by fire.

The roundhouse was in ruins by 1937 and the Houghton Store (with a post office, restaurant and boarding house) ceased operations about 1942 when the rails were removed. Buildings still standing in 1966 were moved or destroyed with construction at Golden Spike National Historic Site (Ayres and Anderson 1981:1-8).

Discussion of Promontory is abbreviated since the site is not within the scope of this study. Its inclusion is primarily for reference.



Chinese coins from Terrace

Left & Middle: Ch'ien Lung from Szechuan Province
Right: Ch'ien Lung from Yunnan Province



Figure 87: "Promontory from West." (dates from the fall, 1869)
A.J. Russell photo S536 (Oakland Museum).

VISUAL FEATURES AND FACILITIES TODAY

Building a railroad leaves scars, now considered important, integral, and often picturesque aspects of our historic past. Subject to proper management and protection, the railroad grade and its associated features will exist for hundreds of years. Much of the grade remains and serves as a travel corridor across the Great Salt Lake Desert (Fig. 88, 89). Sidings are often characterized by railroad ties still embedded in the grade. Large rock cuts in the Peplin and Promontory Mountains (Fig. 90) and large earthen fills, including one at Dove Creek (called Duff Creek in railroad documents), testify to the fortitude and perserverance of the railroad workers (Fig. 91).

Erosion control techniques employed over a century ago contribute to the grade's longevity. In the Peplin Mountains, railroad ties are embedded upright in the wash channels upstream from the grade to divert runoff water through culverts (Fig. 92). Despite limited precipitation, the soils of the Salt Desert erode easily, evidenced by numerous gullies and arroyos. Culverts and bridges were continually rebuilt to keep pace with erosion. Evidence remains for more than 150 such structures. They are discussed here in order of decreasing size:

Large washes and deep arroyos required open deck, piled, trestlework bridges (Figs. 93, 94). A "piled," bridge refers to upright foundation timbers deeply embedded in the ground. Initially during the rush to Promontory Summit, many of these bridges were not "piled," but built on timbered sills. The time-consuming task of piling the trestles was accomplished later by Chinese section gangs. Also, flimsy trestles were later filled up and replaced with small culverts by Chinese section gangs. Figures 95 and 96 illustrate late 19th century Southern Pacific "Common Standards" for trestlework bridges. Riprap (rocks, boulders, used boiler bricks and other trash) was deposited in the washes to reduce under cutting of the piles.

Smaller drainages and gullies required wood box culverts (Figs. 97, 98, and 100), often constructed of California redwood (Fig. 99). There is a limited occurrence of redwood stave culverts, implying an early design and subsequent phase-out. Wooden stave culverts are aesthetically interesting variations of the wood culverts (Fig. 101).

Stone culverts are the most numerous. Two varieties occur: (1) stone box (Fig. 102), and (2) open deck (Fig. 103). Riprap was used to reduce erosion. Some of the stone culverts were widened with wood box extensions when the track gauge was widened.

SOUTHERN PACIFIC COMPANY

COMMON STANDARD

MAINTENANCE OF WAY DEPARTMENT.

C.S.T.

70

ADOPTED

E.B. Bushong

ENGINEER IN CHARGE

ADOPTED

J. J. Marshall

CHIEF OF MAINTENANCE

APPROVED AS PRELIMINARY

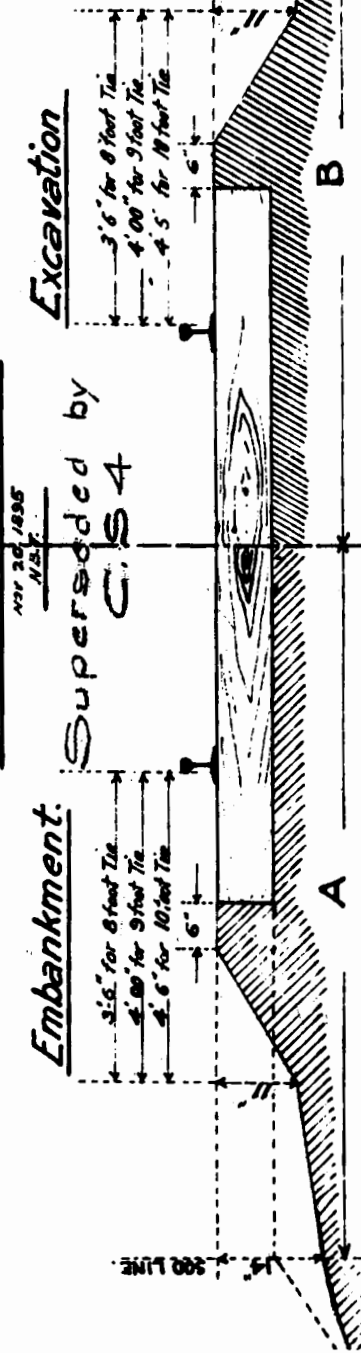
J. J. Marshall

CHIEF OF MAINTENANCE

Southern Pacific Company.

SPECIAL ROADBED

FOR ARID REGIONS



Special Form for Sand or other Permeable material through which water falling on track, quickly drains out and does not cause Ties to "PUMP". Authority to use this Special Form must be obtained from Engineer of Maintenance of Way by orders specifying particular locality for which it is authorized. A record of such orders must be made in the Books of Rules and Standards in possession of Roadmasters and Resident Engineers.

Standard Distance A:

For Construction of New Lines.....8 Feet.

For Existing Valley Lines.....8 Feet.

For Existing High Embankments.....7½ Feet.

Standard Distance B:

For Construction of New Lines in general.....8 Feet.

For Construction of New Lines in Regions where Rainfall is heavy.....9 Feet.

Note:- Where it can be conveniently and cheaply done in connection with work or trimming slopes and clearing away Slides on Existing Lines-distance B should be made 9 Feet.

Figure 88: (Courtesy of Southern Pacific)



Figure 89: Railroad grade in the Utah desert today.
(BLM photo)

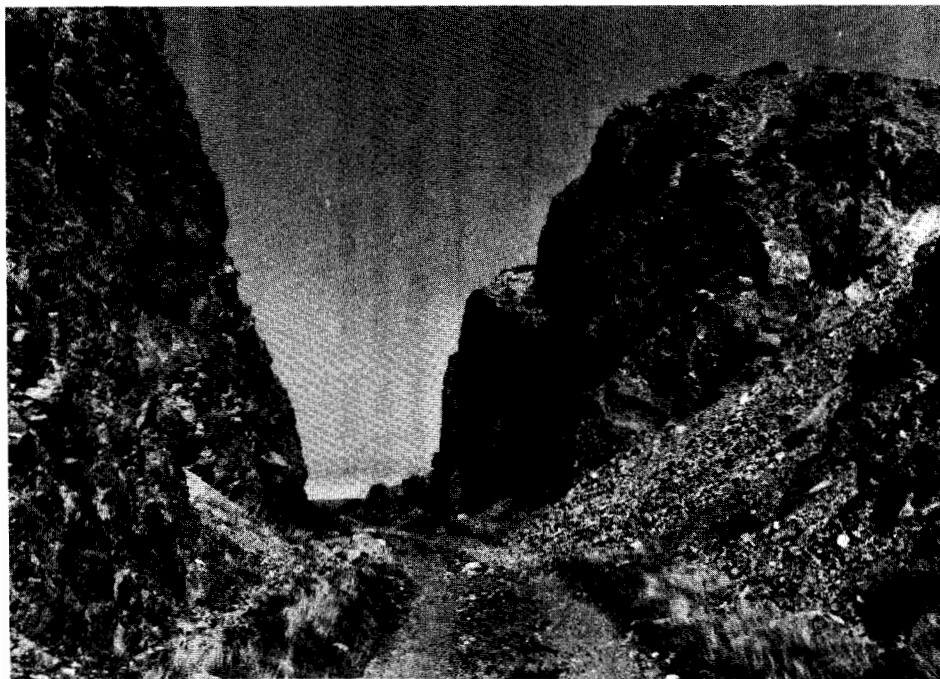
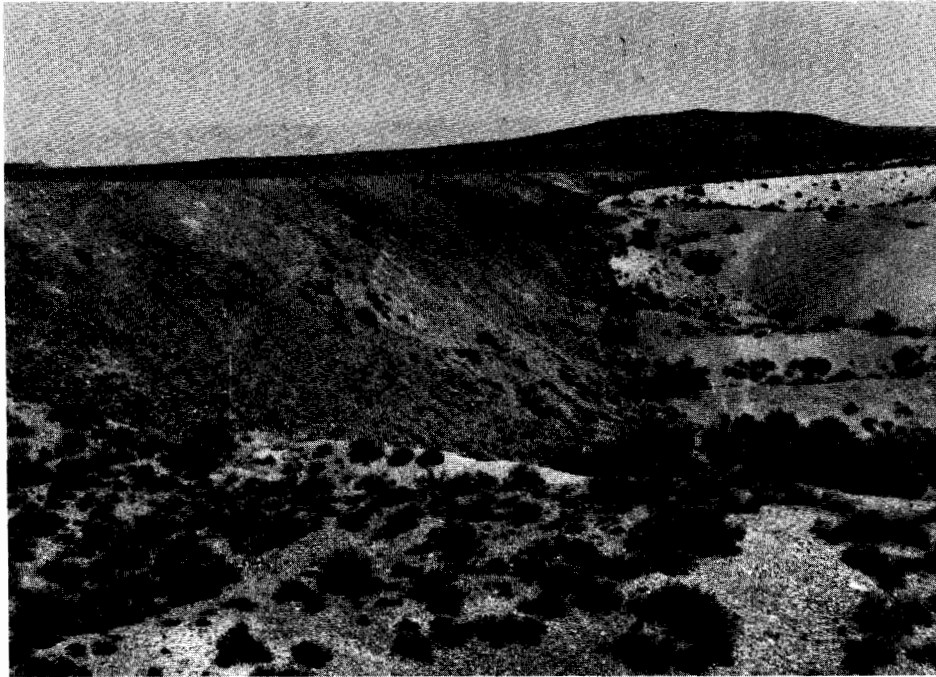


Figure 90: A large rock cut for the railroad grade in the Peplin Mountains.
(BLM photo)



**Figure 91: The large earthen fill carries the railroad over Dove Creek Sink.
(BLM photo)**



**Figure 92: Railroad ties embedded in a wash channel to divert erosion
away from the railroad grade.
(BLM photo)**



Figure 93: Trestle-work bridge over Rosebud Creek
(BLM photo)

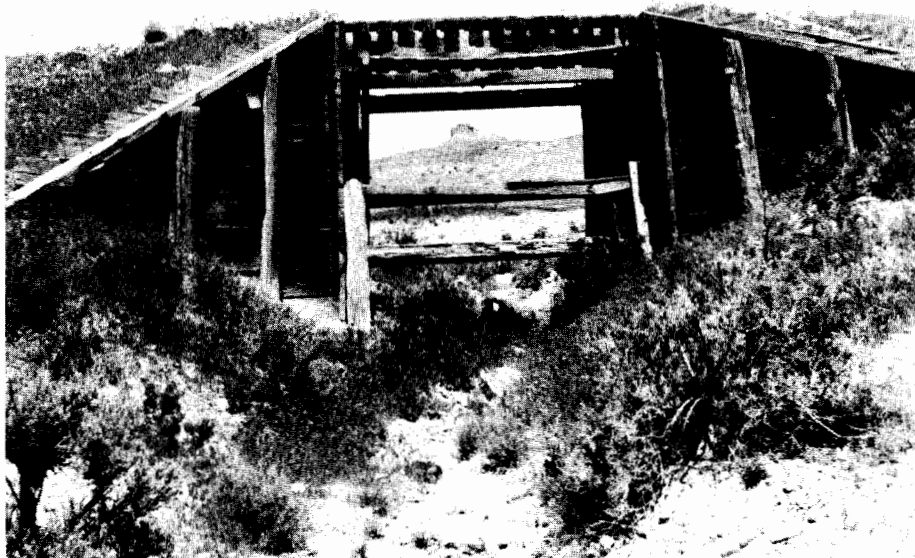
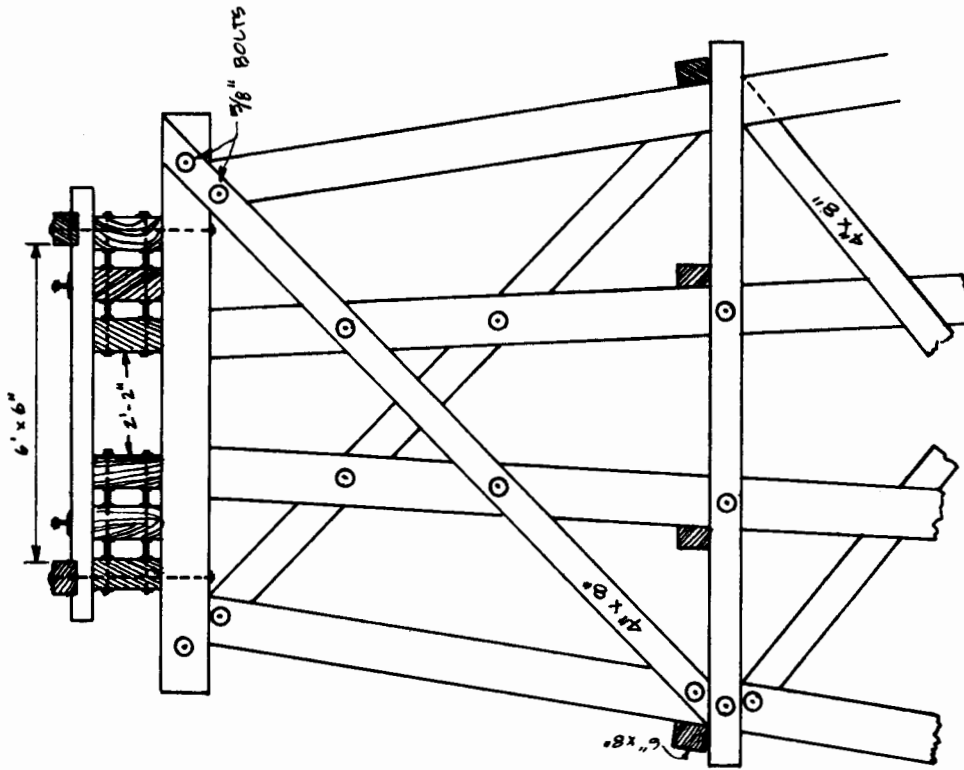


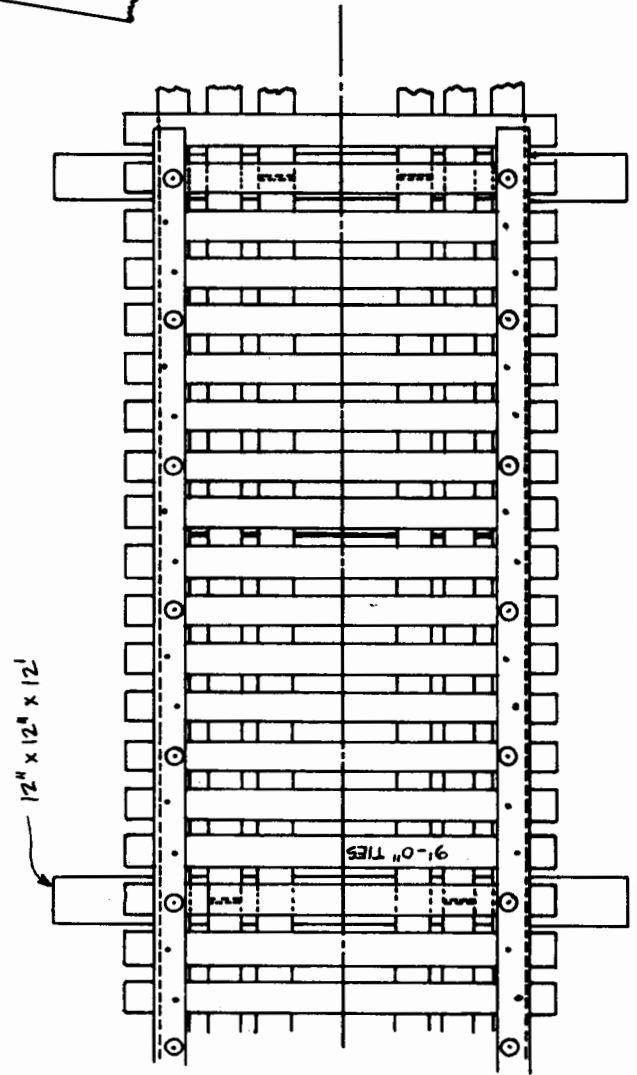
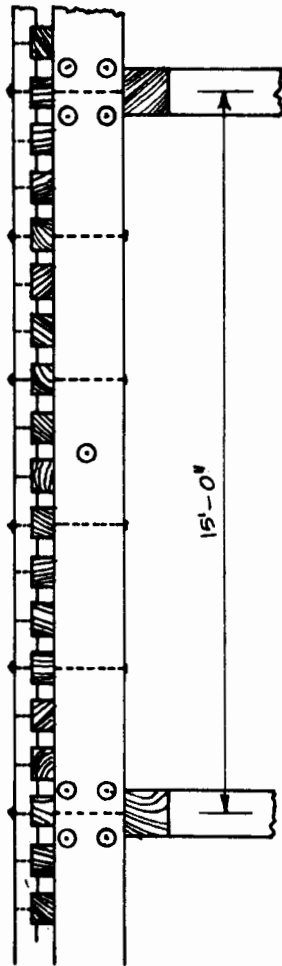
Figure 94: Single stringer trestle with large wing-walls
(BLM photo)

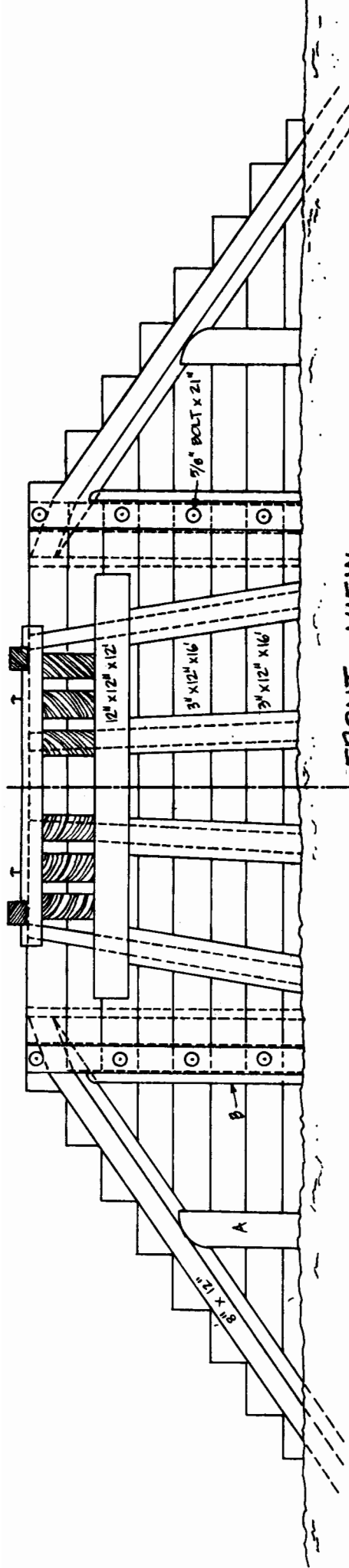
Figure 95 (Rendered from Southern Pacific Common Standards
1896, courtesy of Southern Pacific)



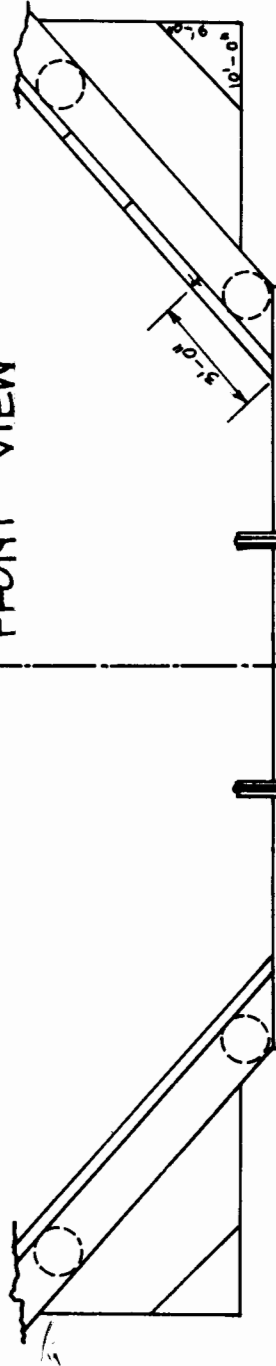
THREE STRINGER
TRESTLE
SOUTHERN PACIFIC CO.
COMMON STANDARDS
SCALE: $\frac{1}{4}" = 1'-0"$

5-9-96



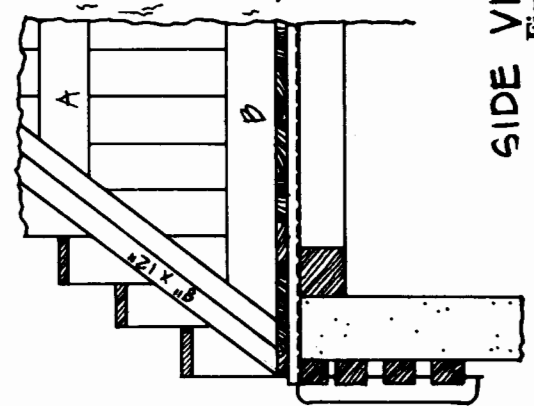


FRONT VIEW



TOP VIEW

When bulkhead is less than 7 feet high from ground to rail base, omit wing plates. Posts 'A' & 'B' may be either set in place or driven. If set in place, use pile tips, butts, or other "waste" timber. When necessary, 4" sheet piling is to be substituted for horizontal planing.



SIDE VIEW

WINGED BULKHEAD
FOR STRINGER TRESTLE
SOUTHERN PACIFIC CO.
COMMON STANDARDS

SCALE: 1/4" = 1'-0"

12-1-96

Figure 96: (Rendered from Southern Pacific Common Standards 1896, courtesy of Southern Pacific)

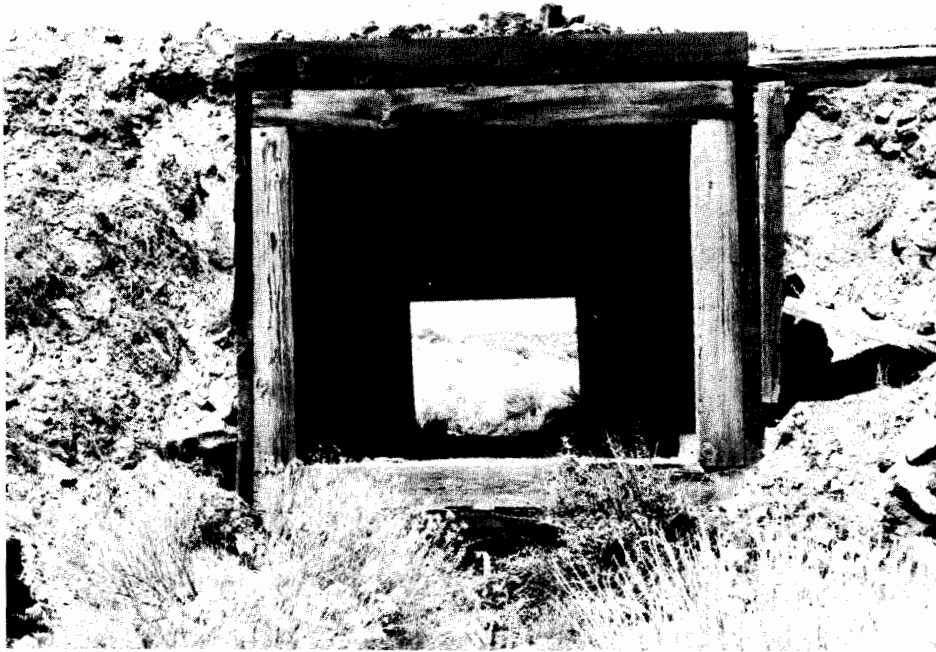


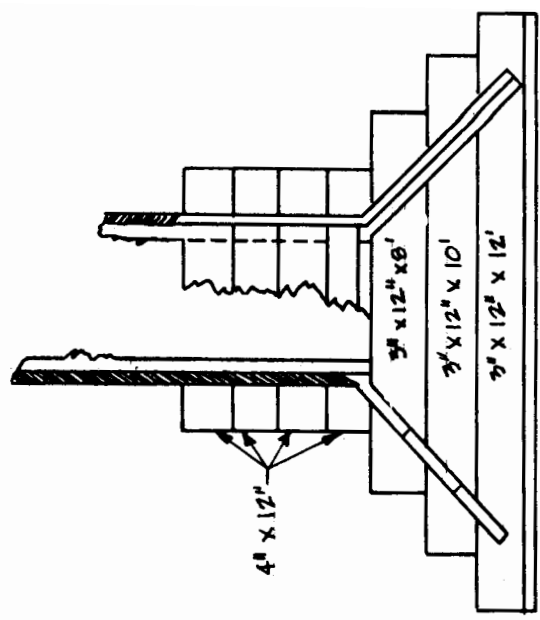
Figure 97: Wooden box culvert - about 3 feet square
(BLM photo)



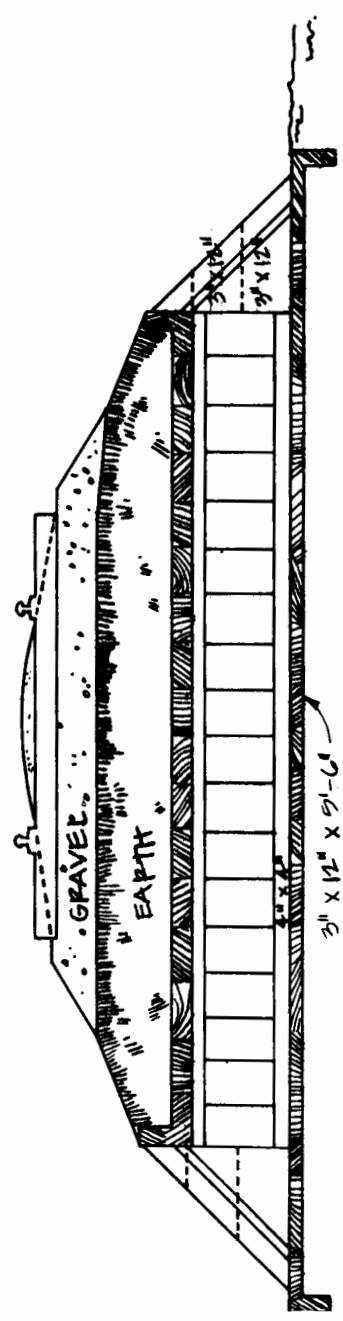
Figure 98: Wood box culvert with wing-walls, apron, and riprap.
(BLM photo)

CREOSOTED BOX CULVERT
SOUTHERN PACIFIC CO.
COMMON STANDARDS
SCALE: $\frac{1}{4}" = 1'-0"$

3-24-96



PLAN OF END



END VIEW

SECTION OF BOX

Figure 99: (Rendered from Southern Pacific Common Standards 1896, Courtesy of Southern Pacific)



Figure 100: Dual wood box culvert
(BLM photo)



Figure 101: Wooden stave culvert with wing-walls, apron, and riprap.
(BLM photo)



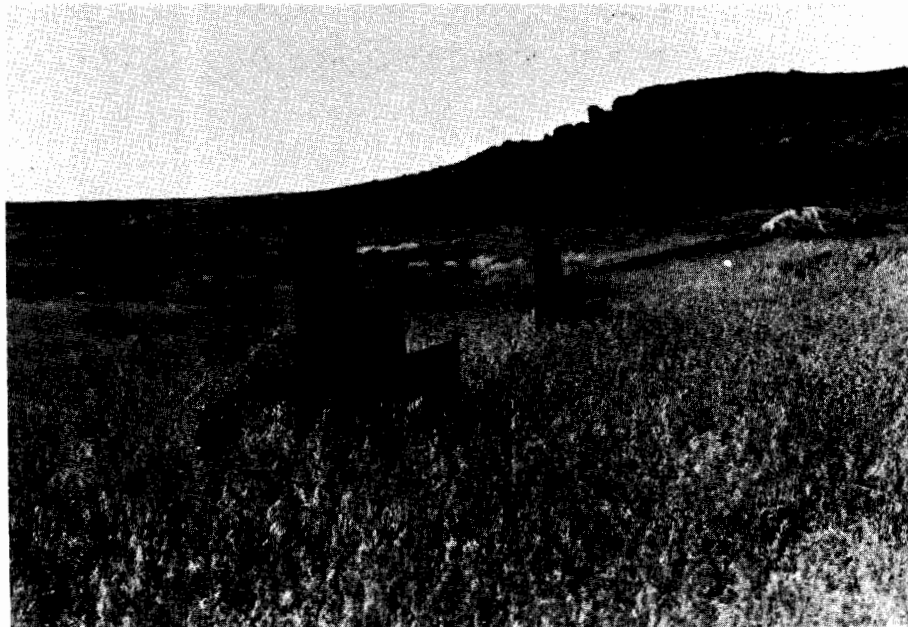
Figure 102: Stone box culvert
(BLM photo)



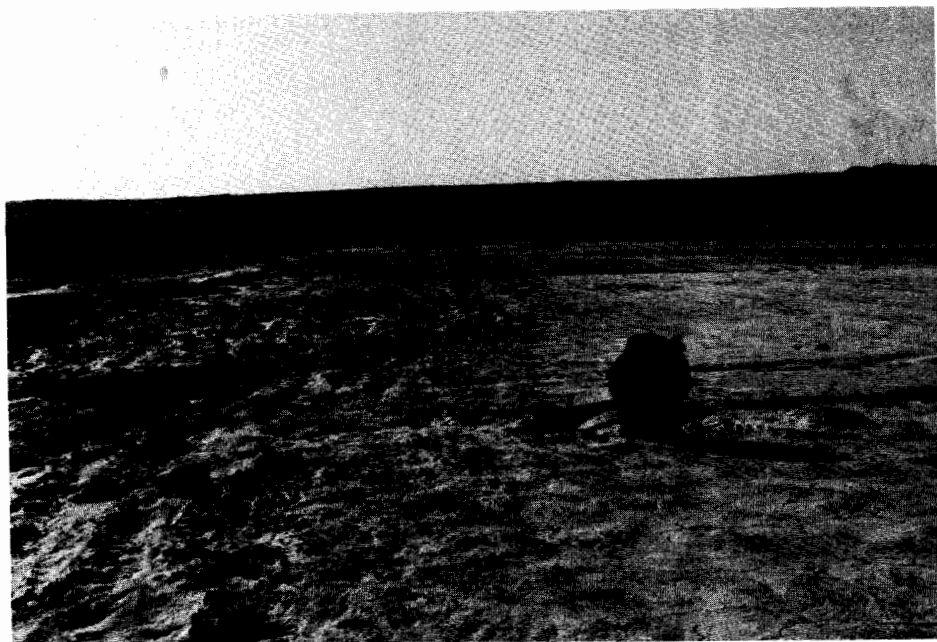
Figure 103: Open-deck stone culvert
(BLM photo)

Other features include rail-rests for storage of replacement rails (Fig. 104) and remnants of the telegraph. The 1862 Pacific Railroad Act called for construction of a telegraph line to parallel the right-of-way. Prior to the coming of the railroad, the primary east-west transportation and telegraph route crossed central Utah, south of the Great Salt Lake. Both the telegraph and Overland Mail service moved north to accompany the railroad in 1869 (Fike and Headley 1979:57).

The original telegraph line was built on the south side of the track. Stumps of the square poles (Fig. 105) and pieces of the late cross arms (Fig. 106) are visible today. Figures 107-110 illustrate the insulators use. Other telegraph lines were built and located along the grade (Fig. 111). Figure 112 is a cross arm which housed the early “ramshorn” insulators.



**Figure 104: Rail rests near Ombey
(BLM photo)**



**Figure 105: Stumps of telegraph poles near Kosmo
(BLM photo)**



**Figure 106: Telegraph cross arm for predominately Hemingrey Insulator 42
(BLM photo)**

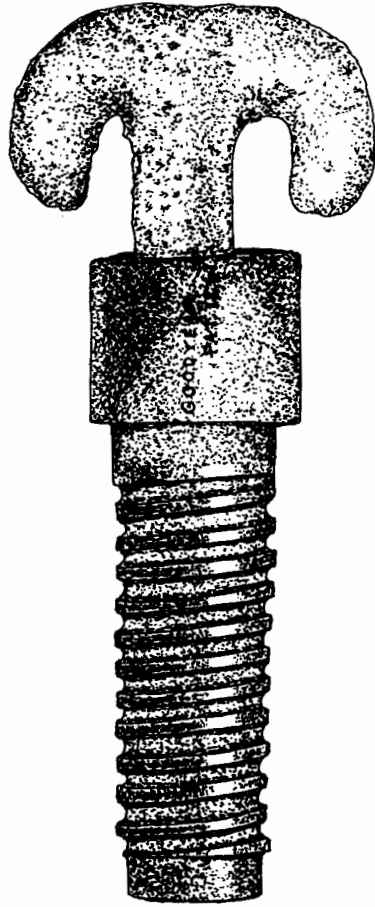
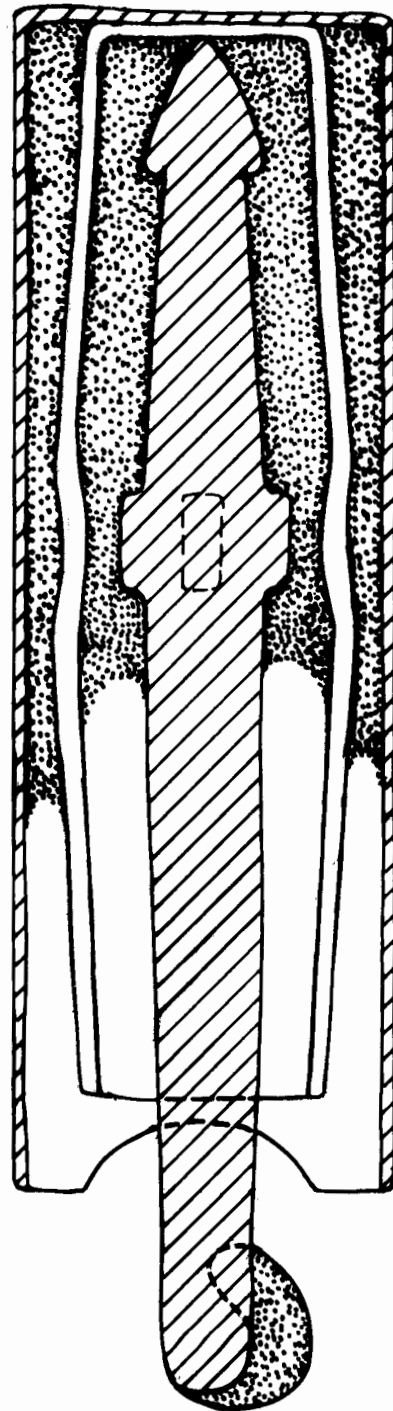
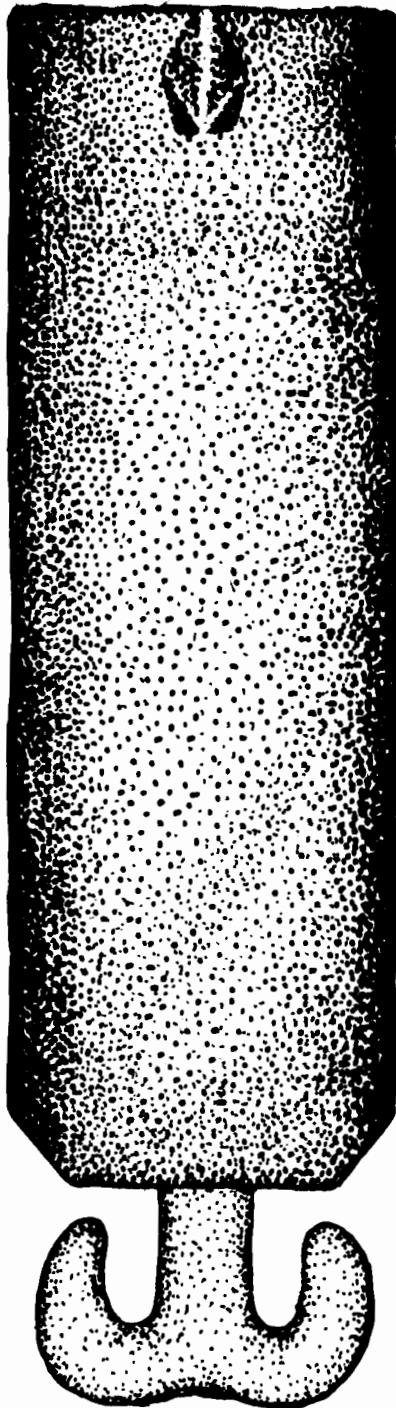


Figure 107: Goodyear Patent Insulator 1861



Figure 108: Brooks Patent Insulator, Patent 1867, used until about 1880.



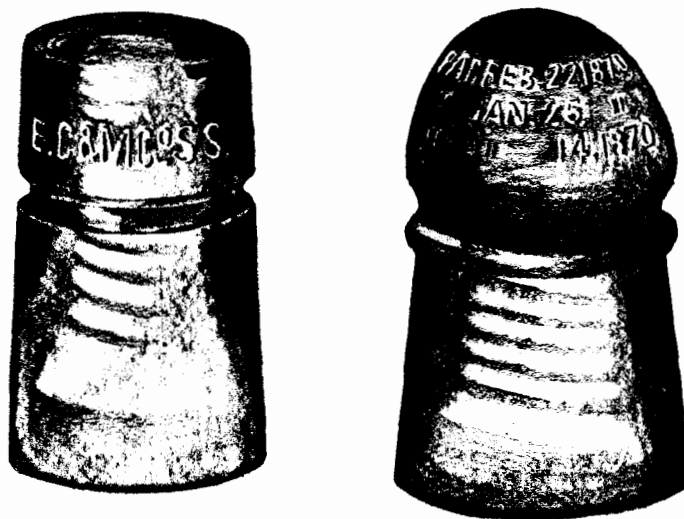


Figure 109: Insulators: Electrical Construction and Manufacturing Company, San Francisco (made before 1880) and Brookfield Company, New York.

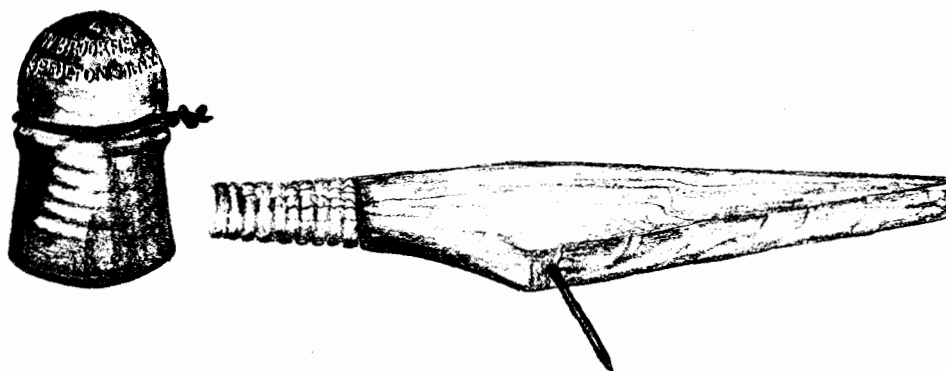


Figure 110: Brookfield Insulator and pole peg.

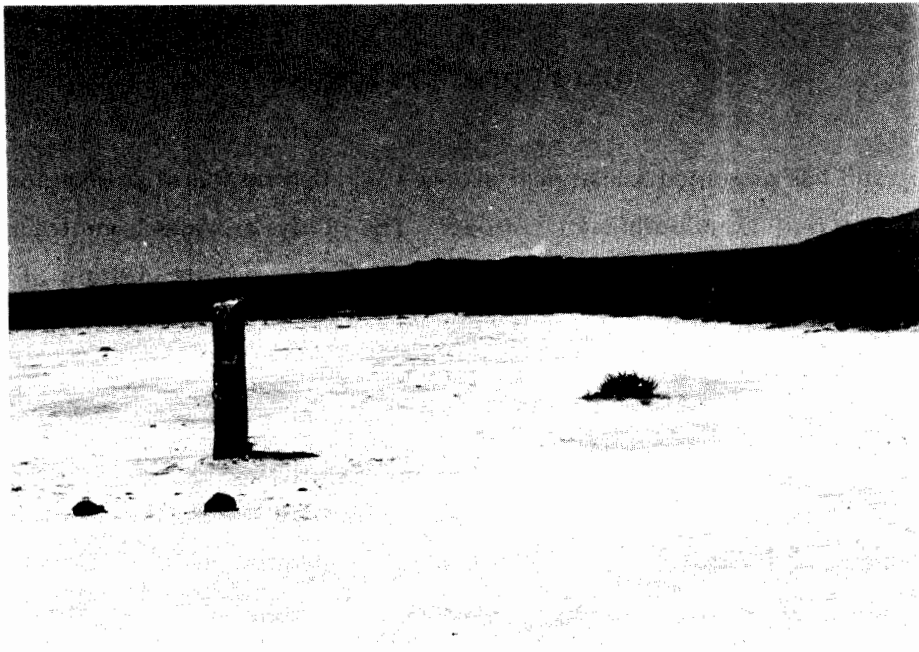


Figure 111: Stump from early telegraph pole near Lake Station
(BLM photo)

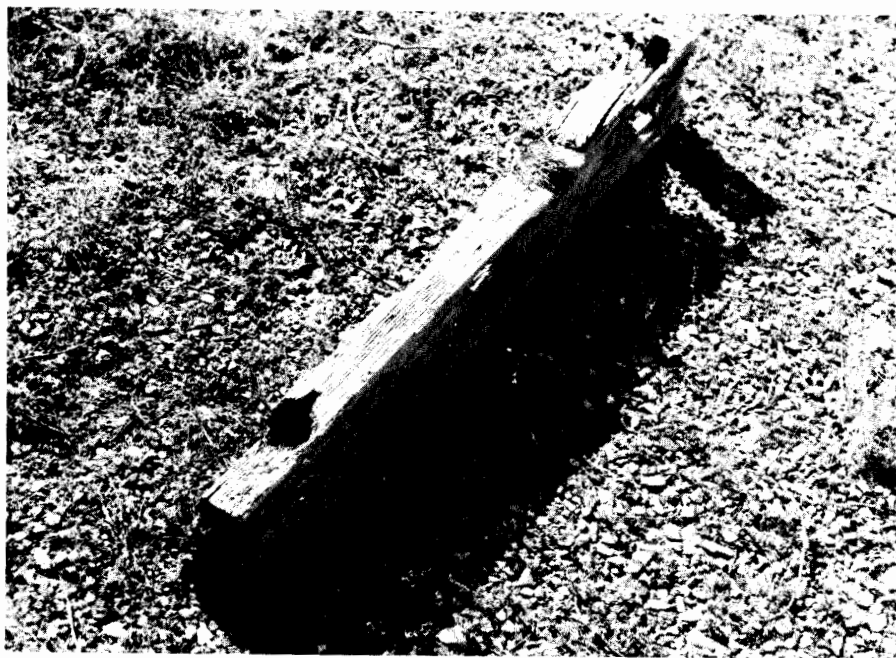


Figure 112: Cross arm from 1869 telegraph pole
Note - sockets for "Ramshorn" insulators
(BLM photo)

CONCLUDING STATEMENT

This monograph has presented a historical overview and description of an abandoned segment of the Nation's first transcontinental railroad. The study provides a contribution to the Bureau of Land Management's continuing efforts to foster wise stewardship of this unique cultural entity. Hopefully this monograph will enhance public appreciation for the rich legacy left by the people who lived and worked along the railroad.

The abandoned grade, approximately 90 miles long, represents America's longest continuous segment of the first transcontinental railroad still surrounded by a relatively remote and unspoiled environment. This comparative isolation has contributed to the longevity and preservation of the railroad grade. But with the growth of public interest in America's cultural heritage, this valuable resource will receive greater exposure and attention, as well as increased susceptibility to damage by vandals, looters, and casual artifact collectors (collecting is illegal on public lands).

We hope that this study will be the first of many that will not only interpret the history but will contribute to the desire of visitors to protect and preserve the railroad grade for generations to come.

APPENDIX I

Construction Progress and Locations Along the Railroad Compiled from Southern Pacific Documents

DAY	MILES OF TRACK LAID	MILES FROM SAN FRANCISCO	FEATURE
		678.5	UMBRIA JUNCTION (in 1905)
		678.8	Umbria (original Lucin) in 1869
March 23, 1869		679.2	END OF TRACK (Grouse Creek)
		680.6	Historic Lucin (in 7/6/1875)
March 24, 1869	2.1	681.3	END OF TRACK
March 25, 1869	4.0	685.3	END OF TRACK
		686.4	Medea (in 1899, out 1906)
March 26, 1869	2.1	687.4	END OF TRACK
March 27, 1869	1.1	688.5	END OF TRACK
		691.6	Bovine (in 1869)
March 29, 1869	4.1	692.6	END OF TRACK
March 30, 1869	4.3	696.9	END OF TRACK
		697.5	Walden (in 1898, out 1906)
		699.8	Watercress
March 31, 1869	3.6	700.2	END OF TRACK
		702.1	Terrace (in 1869)
		703.5	"Old Terrace"
April 1, 1869	3.4	703.6	END OF TRACK
		705.0	Terrace Pass
April 2, 1869	2.9	706.5	END OF TRACK
			Red Dome (in May 1895)

April 3, 1869	2.3	708.8	END OF TRACK
April 4, 1869	1.6	710.4	END OF TRACK
April 5, 1869	2.3	712.7	END OF TRACK
		712.8	Matlin (in 1869)
April 6, 1869	3.7	716.5	END OF TRACK
		717.6	Romola (in 1869, out 1906)
		722.6	Ombey (in 1869)
April 8, 1869	6.6	723.1	END OF TRACK
		723.6	Gravel Pit (section houses)
April 9, 1869	4.2	727.3	END OF TRACK Peplin (in 1888)
April 10, 1869	3.1	730.4	END OF TRACK
		730.6	Opposite Table Mountain
		734.1	Kelton
April 12, 1869	4.6	735.2	END OF TRACK
April 13, 1869	2.2	737.4	END OF TRACK
		739.1	Elinor (in 10/1901)
April 14, 1869	2.0	741.1	END OF TRACK
		741.5	Seco Siding (in 1872)
		743.0	Seco Section House in June 1873
		743.9	Nella in 1902 out 1906
April 16, 1869	4.4	745.5	END OF TRACK
		746.6	Ten Mile
April 17, 1869	1.9	747.4	END OF TRACK
		748.6	Monument (in 1869)
		748.8	Monument Point
April 19, 1869	2.3	749.7	END OF TRACK

		751.6	Kosmo (in 1912)
		752.1	East Kosmo
April 20, 1869	3.8	253.5	END OF TRACK
April 21, 1869	1.8	755.3	END OF TRACK
		755.6	West Lake (in 1877)
		756.6	East Lake (in 1869)
April 26, 1869	3.4	758.7	END OF TRACK
April 27, 1869	0.5	759.2	END OF TRACK
		760.5	Metataurus (in 1898)
		762.7	Centre (in 1879 out 1890)
April 28, 1869	10.0	764.2	END OF TRACK
		765.0	Rozel (in 1869)
April 29, 1869	3.7	772.9	Promontory Summit
May 10, 1869		772.9	Golden Spike is driven

APPENDIX II

Written accounts of everyday life on the Promontory Branch of the Transcontinental Railroad are not readily available. The purported fire in Terrace may have destroyed any documents. Newspapers printed during the railroad era provided erratic coverage of activities and events of the stations along the railroad. However, for a brief span in the early 20th Century, the Box Elder Report (Brigham City, Utah) included a series of columns written primarily by and for subscribers living in towns along the Promontory Branch.

Terrace's Chinatown.

County Attorney J. S. Perry and Sheriff Cordon visited Chinatown while in Terrace lately. The county attorney had been trying a case before H. J. Hogan, justice of the peace of Terrace. The county is one hundred and fifty dollars ahead by reason of the fine imposed.

The Chinaman had paid \$500 for his wife and he claimed the right to beat her, which right the

court through Justice Hogan denied. The Chinaman will now leave his wife.

Attorney Perry speaking of Chinatown says:

"A number of the residents of Terrace are Chinese. They have one store and a place of worship, but the homes they live in are miserable huts built of railroad ties. They have a number of children, but a girl is thought very little of, while boys always receive the best of care.

"Jem, the Nevada Chinese rancher, has a small boy who attends school and is said to be one of the brightest, if not the brightest, student in the school.

"What a difference in treatment by half civilized and civilized nations! With the former females are hardly better than slaves, but with the latter they get the best of care, have all rights guaranteed them; have even produced a Susan B. Anthony and a Carrie Nation, and the end is not yet.

"If any of the gentle sex of Utah are dissatisfied, visit Chinatown at Terrace, then return home and rejoice forever that you are not a Chinese."

Attorney Perry and Sheriff Cordon took the Chinese prisoner, Ung Goon, out to Terrace Tuesday. He appeared there before Justice Hogan and plead guilty to assault and battery on the person of his wife and was fined \$150, which his Celestial brethren helped him pay and he was turned loose. The officers returned to Brigham Wednesday.

Kellogg Town Talk.

The chief of the Brotherhood of Locomotive Firemen, Frank P. Sargent has been appointed commissioner-general of immigration to protect V. P. Wells only, at one time grand master workman of the Knights of Labor. The president says the cause of removal is "official friction." The B. of L. F. say their chief is the proper man for the place.

Mrs. Quinn is putting down a new carpet. We also notice some new chairs and a new cupboard. Look out for big bills this month, John.

Orders are out on the S. P. for a general clean up in all departments, as President Harriman is expected over the line in a few days.

There is a general order out on this division for all section foremen to ride over their section once each month on the rear end of a passenger train to better observe the condition of the track. Look out, boys, for it is ~~bid~~ to say what effect the coach varnish may have on you.

The few warm days we are having are thawing out the hobos, as quite a number are going both ways. The common "bo" takes a box car, but the "bloods" take the blind of first-class trains. One was killed in a freight wreck near Lake a few nights ago.

We people hardly know what to do down here in the sage brush on account of the war that is being waged between THE REPORT and the News. Now, gentlemen, the advice from this end of the county is, "Don't fight."

A helper engine blew up a few nights ago while helping freight train No. 208 from Lake to Promontory and killed the engineer and fireman, also the head brakeman. We learn that the fireman lived until two o'clock next day. This is a very sad accident as the engineer was one of the most competent on this division. He leaves a wife and two children. The brakeman was a new man on his

April 5, 1902 page 2 continued

second trip. The fireman is an old man on the road, having fired a helper out of Terrace for Mr. ~~Wells~~ several months ~~ago~~.

Very bad roads are reported north of here. Brother Robbins says he stalled a few nights ago and had to call on a neighbor to pull him out.

We are informed that H. C. Christiansen can make a suit of clothes about \$10 cheaper than the tailors in Ogden. We do not understand how he can do this but we are going to order a suit soon. Do not think from the above that we are trying to work THE REPORT for an ad.

Mr. Rose is looking pleasant. He says Mrs. Rose and the boy are getting along nicely.

J. F. Morrow, our operator at Malta, is going to Canada about May 1st to bring out Mrs. Morrow and the baby. Mr. Morrow says he is planting quite a lot of fruit trees this spring. We wish you much luck, old man, for we know you are a good neighbor.

Quite a number of strangers are in town on their way up to the Park Valley mining district. Very little news can be obtained from that "neck of the woods" nowadays. We notice very little coal or grub going up lately and that is a very good indication that there is not much being done.

A gentleman drove into town last week with a large gray burrow firmly strapped in his wagon. On being asked "where he was going to show" he said, "Up in Park Valley." A gentleman by the name of Walter Clancy ran into this same gentleman's barn not long ago in Corinne and broke his leg. We have not heard if Ed has moved the barn yet or not.

NEW SUBSCRIBER.

Kelton Town Talk

The Century mining Co. shipped an engine shaft to Salt Lake City last week through Wells Fargo & Co. which 1800 lbs. The express charges were \$70.

Quite a lot of robberies are going on in this end of the county lately. The post office at Terrace was robbed last week and quite a lot of goods were carried off. Boots, knives and razors and also some dry goods were taken. Old Bach lost a gun out of the room in his boarding house a few days ago in this town. Your humble servant lost six white hens off the roost last week and if the fellow who took them away will return them he will get a reward of one dollar and no questions asked.

A great many bad colds are reported in town. Your scribe is off his feed with a very bad cold. Our better half is layed up with the mumps.

Rev. Father Manion was in town one day last week and held services at my shack. The old gentleman takes a trip over the S. P. twice a year, May and November.

The weather is very cold here and heavy snow storms are on the hills for the past four days. We had a very heavy snow storm here on the 18th.

NEW SUBSCRIBER.

Kelton Town Talk

On a west bound train one night last week between this place and Terrace two hobos who had guns went over the train to collect toll and we hear that the net gains were about a hundred dollars. The train crew not molested. Some of the hobos it seems have money but it is not the class that batter our back door every morning.

E. H. Jones handled a car of salt today. Mr Jones wanted to hire some hobos who were loafing about town and they wanted \$3.50 per day and was not "stuck on the job at that."

The Southern Pacific painters are painting all the company buildings which gives quite a neat appearance to the town.

J. S. Barker is up in Ogden for a few days.

President Harriman made a flying trip over the road last week to look over some improvements that are being made west of here in the way of lowering grades and shortening the line.

M. O'Rourke has been placed in charge of the century mines and he says there is gold in the hills. He has wired for a Mr. Jackson to take charge of the battery. So we may look for big returns in a short time.

Now since the Post Office at Terrace has been robbed and a train of hobos held up our hen roost has been worked and also that a sheriff went west on the rear end of a caboose a few days ago it is more than likely that we will hear something drop in a short time.

NEW SUBSCRIBER.

Kelton Town Talk

Maud Robinson is visiting her parents near Albion where her father is ranching.

E. H. Jones is at home again after a ten days stay in the foothills among his several bunches of sheep.

Oscar Ryan of Ten Mile is in Kelton today, he has just returned from Salt Lake City where he went to consult the doctors in regards to the condition of his daughter, Miss Pearl, who has been an invalid for about four years.

Our night operator Mr. Spindler has quit and a new man is at the desk. Sixty days is about as long as an operator cares about staying in Kelton.

The captain of the bass ball team of this place desires me to say that his nine would like to meet some local nine on the Kelton grounds. Albion preferred. Albion Times please copy.

Good news is coming down from Park Valley now days and we hear of pay dirt being struck almost every day. From the amount of freight that is unloaded here for that point we are inclined to think that they are working quite a force.

Miss Delta Cole, our school teacher, is in Ogden visiting her mother.

Mr. C. Stuart and wife are in Ogden on a ten days visit. Mr. Stuart is firing a helper between here and Red Dome.

NEW SUBSCRIBER.

Kelton Town Talk

The young folks are having a hop about twelve miles up the valley. We are informed that several rigs are going up and a good time is looked for. Old Batch is invited up to play the organ.

Our little town was honored with a visit from the Hon. C. H. Hart last week. The Judge was on his way up in Park Valley where he is looking after some legal matter connected with his court.

Wool is coming in for shipment and the agent Mr. Klock says he looks for pretty heavy work in that line for some time to come.

Track laying has begun on the west end of the cutoff from Lucin to the lake.

Frank Smith was in town on Sunday he is looking after some fine horses for the Keough Bros. on their ranch. He tells us that Mr. Gordon the foreman of the ranch is in Ogden in a hospital sick.

Miss Cole has been engaged to teach our school for the coming term and the mammas are all well pleased with the selection. Kindly correct a mistake that appeared last week in the REPORT, as Miss Cole's mother does not live in Ogden but in Salt Lake City, we were misinformed.

NEW SUBSCRIBER.

Kelton Town Talk

We notice in the Report of June 14 a case of a Mr. Knox of Smithfield who was robbed of \$157 and the thief returned the money and placed it on the doorstep. I am going to inspect my hen coop every morning for a month to see if my six white hens are returned. I still think that the fellow who took them away did it in the way of a joke and the hens will turn up all right one of these days.

We learn that Park Valley is on the boom although the stock is only about 25c. Quite a lot of coal and freight is going up every day and almost every day and almost every stage has one or more passengers. We learn that under the new superintendent Mr. O'Rourke the century is coming to the front.

Mr. Myers, who has been firing a helper here for several years, has been called in to Ogden to take charge on a road engine. We wish him good luck and plenty of it.

John Mortensen unloaded two cars of fine sheep here last week they are selling from \$60 to \$100 per head.

Our agent Mr. Klock is off on a two months lay-off and Mr Curtis is in charge of the office.

E. H. Jones is off to the foothills again looking after his sheep shearing.

Several cars of wool are in the freight house ready for shipment and the agent says the wool shipment will be very good this season from this place.

G. Gordon, who is foreman on the ranch of the Keough Bros., passed through here today on his way home.

NEW SUBSCRIBER.

Kelton Town Talk

C. Stuart's family is well of the measles as we see him and his wife and all of the children out for a walk one evening last week.

A new engine just out of the shop was being run to Bonneville on a trial trip and it appears that while the engineer was in the depot getting orders that the fireman moved the engine for some cause or other and it got beyond his control and rolled out on the main track about the time that the second section of No. 5 was due and either through his excitement or his not knowing how to handle the machine he could not get her back into clear on the siding and No. 5 crashed into the engine, of course it was a side wipe and it cleaned off one side of each engine afterwards one side out of all the coaches. A second section of No. 5 was made up in Ogden and sent out as soon as the wreck could be cleared away. The second section was about two hours and a half late. It is out of the question to learn if anyone was hurt but we are told that some of the coaches were badly hurt the light engine that the passengers had made a grand rush for the other side of the main. Quite a lot of truck was torn up around the wreck.

Our old operator, J. E. Morrow, has returned to Matamoras after a two months visit among his people in Canada.

E. H. Jones is at home again after spending some days with the boys who are shearing his sheep. Mr. Jones says that the clip is fine.

All the readers of the your paper are talking about the improvement that is being made from time to time. The little sheet looks better every week.

NEW SUBSCRIBER.

Kelton Town Talk

Bishop Goodliff was in Kelton one day last week.

Mr. O'Neill, the S. P. pumper at Promontory, had a son who has been braking on the road for some time and while his train was on a siding to meet a passenger train it seems that he went to sleep on the rail and it looks as if he used the rail for a pillow for when picked up the body was on one side of the rail and the head on the other.

The colored cook at the Vicks house has quit and Mr. Vicks has hired a "Jap."

The attention of the proper officers should be called to the condition of the Kelton school house. It is badly in need of repairs.

O. P. Bates the night coal heaver is in Ogden sick.

G. Badger the day coal heaver is taking a lay off for thirty days.

The hay-makers say it is a hard matter to get help although the pay and board is good.

Mr. Blythe is spending a few days in town he thinks the wool market is going to get better for he refused 13c for his clip on Sunday.

The wool is coming in at the rate of about two cars a day.

Old Batch has quit this town cold and is now walking track for Mr. Smith at Monument at day time.

NEW SUBSCRIBER.

Kelton Town Talk

Mr. Crib. Peterson foreman on the ranch of Mr. H. Conant says that the little girl and Mrs. Peterson are doing fine. The girl weighs 10 pounds. Mrs. Ensign says that the girl is the best looking emigrant that he has seen for some time.

A young man by the name of Hostetter who has been braking on the S. P. for some time was run over and cut in two one night last week west of here. Some mystery is connected with his death for when he was picked up his watch and money was found missing. His switch key was found on a car of coal and it looks as if some hobos robbed him and then threw him between the cars.

Mrs. C. Stuart and Mrs. John Quinn went to Ogden yesterday on a little shopping tour. We learn that Mrs. Stuart took a very sick baby with her.

George Badger is unloading a load of timothy hay for his cows. It is worth \$6.00 per ton here now.

Mr. Blythe is in town laying in a stock of groceries for his different branches of sheep. He is one of the biggest sheep men in this country.

There is only one topic of conversation in this town and that

W. E. Jones is in Ogden on a business trip.

The weather is very hot on the desert now 104 one day last week.

It is understood that "old batch" is about to take a lay off for a month and look after the politics of this end of the county. (of course it is to be understood that he is working a republican rabbit foot).

Jolly old Bill Calahan was in town one day last week taking out some light freight to Rosette in the Park Valley country.

Freight train No. 201 west bound one night last week broke a rail just west of Romolo and the entire train passed over safely except the caboose which was turned over on its side and across the track. Your scribe was over the road today as far as Red Dome and the old car is still in the ditch but the "Old Man" is going to pick it up in a few days.

We notice that No. 3 is still taking a car of "bos" west every morning. A coach will carry about twenty bos going in the opposite direction each day. Of well we give it up. We can't see what becomes of the others.

There must be a rushing business going on up in Park Valley. 200 tons of coal were unloaded here last week for that point. All kinds of freight is going up the valley including coal. Almost all of the wagons are double-enders with four or six horses.

NEW SUBSCRIBER.

...write to some of your friends old man and see if they will see do something for you. If your case was the same as of Uncle Sam there is no doubt but some of us could help you but as we are not acquainted with your bondsmen, we are at sea in the matter.

The great passenger "Rush" on the S. P. is all over. The company had figured on about forty trains but as the boiler-walkers on the U. P. are all out on a strike "For Pic." There were only twenty trains of the K. P. people and four Elk trains.

Mr. K. Hostetter, Bridge Foreman on this Division is off for a month and has gone back to his old home in Indiana where he will bury his son who was run over and killed by a Southern Pacific freight train a short time ago.

The graders on the cut-off between Lucin and the lake have a very hard time to keep teamsters and we are told that it is about as hard a matter to keep mules for where the grade is working now it is going through some old salt beds.

Our night telegraph office is closed at this place now as the "rush" is over and the night operator, Miss. Umber, has been called into Ogden.

Vote for Hon. George Sutherland for the Senate. No we won't wait for the nomination, any good Republican could tell you that.

All good Republicans who can get off on Sept. 11th, should go to Ogden. It matters not about you being a Delegate; go anyway.

Now that the date is set for the State Convention to meet in Ogden September 11th, we hope all county conventions will give their delegates the proper instructions as to how to vote before they are sent on this all important journey.

Two hobos passed through here this week, one was an old man and the other was an old lady they are walking from Denver to San Francisco. The old man says the old lady is holding up well on the road and seems about as stout as when they left Denver but if she carries the same amount of baggage to San Francisco that we saw her with she will not be so fresh at the end of the trip.

We notice that a new "scribe" is writing under the head of "Kelton Town Talk." Look out sister you are getting mixed up with our trade mark.

Kelton Town Talk

The round house at this place burnt one night last week with all the contents consisting of several hundred gallons of oil and oil tanks. The company built an addition to this house in June, 1901 so it would hold two engines. A little sand house standing about fifty feet away was also burnt. No one knows how the fire started, but it is thought that a lamp exploded in the oil room.

Mr. McNulty is back on his engine again after a six weeks lay-off on account of sickness. "Mac" has been on the Terrace helper for a long time.

Mrs. John Quinn was in Ogden last week on a shopping tour.

The two Overland Limited trains No. 1 and No. 2 got mixed up west of here last week and smashed the two engines pretty badly and killed the engineer on No. 2. The engineer was one of the oldest on the road. It is said that he lived until he reached Ogden dying ten minutes after reaching the hospital.

All good Republicans will register, and others ought to, in time to get in a good strong ballot this fall. Don't forget the date, November 4th.

The Lucin cut-off is progressing nicely and it is claimed that the track-laying will soon be in the lake and that will greatly help the work along as bridge material can be delivered at both ends of the bridge.

Kelton Town Talk

Mr. A. Alexander and wife have returned from a tour through southern California where they have been spending several months in that delightful climate. Mr. Alexander is a locomotive engineer on one of the helpers here and is one of the oldest men in the service having been on the run for about fourteen years.

John Quinn has just returned from a two weeks trip to the coast and says that the coast is out of sight.

The K. P. Co. is building a new roundhouse at this place, the old one burned early last fall.

There was quite a wreck last week about sixty miles west of Terrace caused by a broken rail. It appears that the first section of No. 1 broke the rail and the rear brakeman who went back to protect the first section failed to get the second section stopped before it ran into the obstruction. One engine left the track on the south side but did not turn over but the second one (the engines were double-headed) turned over and also the tender killing the engineer of the second engine. All traffic was delayed for about ten hours as it was impossible to get by the wreck until a track was built around it.

Very cold weather is reported from all points west of here it was 13 below zero here on the morning of the 15th.

Quite a number of cattle are reported dead just north of here and in some places the sheep are reported to be dying by the thousand.

E. H. Jones is east on business. Since the old man has been elected county commissioner he appears to have all kind of business up the road.

In a conversation today with one of the officials of the Centenary mine I was told that they have struck a good lead of pay dirt and it appears to widen out and get richer as they go down on it. The mine is working quite a force of men and is on better footing now than for some time past.

All trains on the S. P. are from five to fifteen hours late on account of the heavy snow west of here. At Truckee it is reported to be eight feet and the thermometer twenty-five below zero.

Kelton is very healthy just now, a few bad colds are reported is about all the sickness that we can hear of.

The stock men are all feeding more or less during the cold snap. Mr. H. Conant has several extra feeders on at his ranch three miles north of here.

Kindly permit me to correct an error appearing several weeks ago in THE REPORT to the effect that E. H. Jones was the author of "Kelton Town Talk" for we know he is innocent. You will have to guess again Mr. Bush.

BIBLIOGRAPHY

Anderson, Adrienne B.

- 1980 Ancillary Construction on Promontory Summit, Utah: Those Domestic Structures Built by Railroad Workers. Paper presented at the 13th Annual Meeting of the Society for Historical Archaeology, Albuquerque, New Mexico.
- 1978 Cultural Resource Base Map: Golden Spike National Historic Site National Park Service, Rocky Mountain Regional Office, Denver, Colorado.

Ayres, James E. and Anderson, Adrienne B.

- 1981 Promontory Summit, Utah, As Determined Through Excavation and the Historic Record. Paper presented at the 14th Annual Meeting of the Society for Historical Archaeology, New Orleans, Louisiana.

Beebe, Lucius

- 1963 The Central Pacific and Southern Pacific Railroads - Howell & North, Berkeley, California.

Beckwith, E.G., Lieutenant

- 1854 Report of Exploration for the Pacific Railroad on the Line of the Forty-first Parallel of North Latitude Historic Document 129, Government Printing Office.

Bingham, Dennis

- 1969 "The Chinese and the Building of the First Transcontinental Railroad," Ms. on file, Church of Jesus Christ of Latter Day Saints, History Library Archives.

Box Elder News

- 1908 Brigham City, Utah
January 2, 1908 page two

Box Elder Report

- 1900 - 1908 Brigham City, Utah

Cadastral Survey Maps

On file, Utah Bureau of Land Management, Salt Lake City, Utah

- 1872 Third Standard Parallel North
1873 Second and Third Standard Parallels North
1873 T. 9 N., R 15 W. Salt Lake Meridian
1873 T. 10 N., R 13 W. Salt Lake Meridian

McCague, James

1964 Moguls and Iron Men - Harper and Row, New York.

McKenney, L.M.

1880 Business Directory and Railroad Gazetteer of Utah, Idaho, Montana, Wyoming, Colorado and Dakota. L.M. McKenney and Company, San Francisco, California.

Murbarger, Nell

1963 “Chinese Ghost Towns” in Frontier Times p. 22-24 December/January

Ogden Daily Herald

1870 “Daring Stage Robbery” August 1, Ogden Daily Herald, Ogden, Utah

Rand - McNally

1956 Pioneer Atlas of the American West: Containing Facsimile Reproductions of Maps from the 1876 First Edition of the Rand McNally Atlas. Rand McNally, Chicago.

Reeder, Clarence A. Jr.

1970 The History of Utah's Railroads: 1869 - 1883 - University of Utah, Department of History, Ph.D. Dissertation.

Shearer, Fredrick E.

1885 The Pacific Tourist: Adams and Bishop's Illustrated Transcontinental Guide of Travel From the Atlantic Ocean to the Pacific Ocean - Adams and Bishop, New York.

Southern Pacific Railroad Documents - Southern Pacific Transportation Company, San Francisco, California

1869 Engineering Profile of the Railroad Grade at the Salt Lake Division of the Central Pacific Railroad.

1869 Station Plans for Salt Lake Division of Central Pacific Railroad

1869 Alfred A. Hart Photographs

1926 Right-of-Way Track Plats, cumulative data from 1869 - 1926

1869 - 1900 Engineer/Section Foreman reports (various letters to Southern Pacific Offices from Promontory Branch engineers)

Southern Pacific Railroad Documents (Continued)

1955 "Southern Pacific's First Century" - Public Relation's Department, Southern Pacific, San Francisco.

Tinker, Frank

1964 "Utah Chinatown in the Desert" in Salt Lake Tribune Home Magazine January 26, 1964 p. 20-21.

37th Congress

1862 37th Congress, Session 2. Chapter 120 An Act to aid the Construction of a Railroad and Telegraph Line from the Missouri River to the Pacific Ocean, and to secure to the Government Use of the same for Postal, Military and Other Purposes p. 489-498.

Tulliges Monthly Magazine

1883 Volume 2 on file Utah State Historical Society Library, Salt Lake City.

United States Geological Survey

1900 Bulletin of the U.S. Geological Survey No. 166 Gazetteer of Utah with Compendium of Eighth (1860) Ninth (1870), tenth (1880) and Eleventh (1890) censuses. United States Printing Office.

Utah Gazetteer 1924 - 1925

1925 R.L. Polk and Company, Salt Lake City, Utah.

Utey, Robert M.

1960 Promontory Summit The National Survey of Historic Sites and Buildings- United States Department of the Interior, National Park Service, Region 3, Santa Fe, New Mexico.

Cadastral Survey Maps (Continued)

1875	T. 12 N., R. 11 W.	Salt Lake Meridian
1872	T. 11 N., R. 9 W.	Salt Lake Meridian
1887	T. 11 N., R. 8 W.	Salt Lake Meridian

Carr, Stephen L.

1972	<u>The Historical Guide to Utah's Ghost Towns</u> - Western Epics, Salt Lake City.
------	--

Carter, Kate B. et al.

1971	<u>Our Pioneer Heritage</u> Volume 14 Daughters of Utah Pioneers, Salt Lake City.
------	---

Conley, Don C.

1976	"The Pioneer Chinese of Utah" in <u>The Peoples of Utah</u> Papanikolas, Helen Z. ed. Utah State Historical Society, Salt Lake City.
------	--

Combs, Barry

1981	Personal Communication - General Director of Public Relations and Advertising, Union Pacific Railroad Company, Omaha, Nebraska.
------	---

Cram, George F.

1879	<u>Crams Railroad and Township Map of Utah</u> Western Map - Depot 66 Lake St., Chicago, Illinois
------	---

1908	Atlas and Gazetteer, Chicago (Title Page missing, date based on United States Cabinet appointment recorded in Gazetteer).
------	---

Crofutt

1879	<u>Crofutt's Transcontinental Tourist Guide.</u> The American News Agency, New York.
------	--

Derby, Elias Haskett

1869	<u>The Overland Route to the Pacific</u> Leet and Shepard, 149 Wash Street, Boston, Massachusetts.
------	--

Dodd, Mead and Company

1906	World Atlas and Gazetteer, Dodd, Mead and Company, New York.
------	--

Golden Spike Oral History

1969 University of Utah, Western Americana Library Archives
GS 21 MS 95
Pucci, Germano - Box 2 Folder 3
Yagi, Taro - Box 2 Folder 6
Clay, W.A. - Box 1 Folder 4
Sessions, Heber - Box 1 Folder 1
Larsen, Merlin - Box 1 Folder 5

Griswold, Wesley S.

1962 A Work of Giants: Building the First Transcontinental Railroad - McGraw-Hill, New York.

Fike, Richard E. and Headley, John W.

1979 The Pony Express Stations of Utah in Historical Perspective Cultural Resources Series Monograph 2 Utah Bureau of Land Management, Salt Lake City.

Fosgren, Lydia W.

1937 History of Box Elder County: 1851 - 1937 - Box Elder County, Daughters of Utah Pioneers.

Fulton, Robert Larden

1954 Epic of the Overland-N.A. Kovach, Los Angeles, California

Heath, Earle and Campbell, Lindsay

1926 - 1930 "From Trail To Trail" in Southern Pacific Bulletin, Southern Pacific Transportation Company, San Francisco.

Interior, Department of

1862 1862 - 1962 Centennial, Transcontinental Railroad Land Grants - Bureau of Land Management, Washington, D.C.

Kraus, George

1969 a High Road to Promontory, Castle Books, New York.

1969 b "Chinese Laborers of the Central Pacific" in Utah Historical Quarterly Volume 37 No. 1.

1981 Personal Communication - Public Relations Manager, Northwest-Southern Pacific Transportation Company, Portland, Oregon.